PART I: TECHNICAL PROPOSAL

A PROPOSAL TO

ESTABLISH AND OPERATE THE

DOCUMENT AND INFORMATION HANDLING FACILITY

FOR THE

AGENCY FOR INTERNATIONAL DEVELOPMENT

IN RESPONSE TO:
RFP-AID/AN-2012
BEST AND FINAL
SEPTEMBER 17, 1981

Computer Data Systems, Inc.

Computer Data Systems, Inc.

7315 Wisconsin Avenue • Washington, D.C. 20014 • (301) 657-1730

Agency for International Development
Office of Contract Management
Central Operations Division
1735 N. Lynn Street
Room 744, SA-14 (Pomponio Plaza)
Rosslyn, Virginia

Attention: Ms. Joyce Frame, Contract Negotiator

Subject: Best and Final Proposal in Response to RFP AID/AN-2012
A.I.D. Document and Information Handling Facility

Dear Ms. Frame:

We are pleased to submit this Best and Final Proposal to establish and operate the A.I.D. Document and Information Handling Facility. Please find enclosed two (2) copies each of our Technical and Business Management Proposals.

We have carefully reviewed the questions discussed in our meeting held on September 10, 1981, with members of the procurement selection panel and have detailed our answers in this Best and Final submission. We have organized our Technical proposal into two sections:

Section I - General Concerns: describes proposed changes to our original organization team and management plan. These changes are designed to increase the involvement and control of our Project Director, Carlton Combs, in the management of the A.I.D. Facility. The proposed changes also reflect a shift in our management approach to achieve a more service-oriented management team.

Section II - Responses to Specific Questions: provides detailed responses to the technical questions raised during our meeting. The questions and answers have been organized into seven major topics, corresponding closely to those which were presented to us by the members of the selection panel.

We are excited about the prospects of supporting A.I.D. in this vital program and look forward to your visit to our facilities on Friday, September 18, 1981. Should you need any further information, please do not hesitate to contact me on 657-1730.

Sincerely,

Clifford M. Kendall

CK/ctc

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I. GENERAL CONCERNS

A. Introduction.

The successful operation of A.I.D.'s highly integrated Document and Information Handling Facility (DIHF) will require strong, responsive leadership by CDSI management. Thus, in our proposal, we provided an organizational chart with clear lines of authority to a limited number of well-defined functional activities. Even though organizational charts neatly compartmentalize functions and elucidate lines of authority, such charts often prove inadequate to describe how work can best be accomplished. Therefore, to perform any Facility task, CDSI will apply personnel resources based on the strengths of individuals' abilities and experience and not by strict adherence to charted authority. This means that to accomplish any given task, managers may draw upon expertise resident throughout the entire facility--regardless of company affiliation. Further, conceptually and operationally, we view every DIHF employee as working for the users of A.I.D.'s Facility. Every employee's clear functional priority will be user service. In anticipating user needs and expectations, our guiding principle will be that the quality of information going into the data base determines the quality of information the user draws from the system. This principle will direct the daily performance of all input and output tasks of the facility.

B. CDSI Organization, Management and Leadership.

We recognize the need for a strong, cohesive management team that is well organized and effectively coordinated to operate the Document and Information Handling Facility and to deliver services to users. Several changes to our original management team have been made to strengthen our proposed approach. The new organization is depicted in Exhibit 1, AID/DIHF Project Organization.

The new organization is intended to focus the responsibility for overall management of the DIHF more clearly with our Program Director, Carlton E. Combs. Mr. Combs will be the single point of contact for A.I.D. in all technical and administrative matters, and will have ultimate responsibility for the quality of user services. Mr. Combs will also direct the activities of the primary supervisors: Richard Rader in the Document Processing Unit, James Booth in the Operations Unit, and Elizabeth Fake in the User Services Unit.

Mr. Combs is an experienced administrator and a practicing computer professional with nearly 20 years' experience in the design, implementation, and management of large information systems projects. As Program Director, he will have responsibility for the following activities:

- Providing technical and administrative management of the project.
- Interfacing with A.I.D. management to define technical and administrative guidelines.

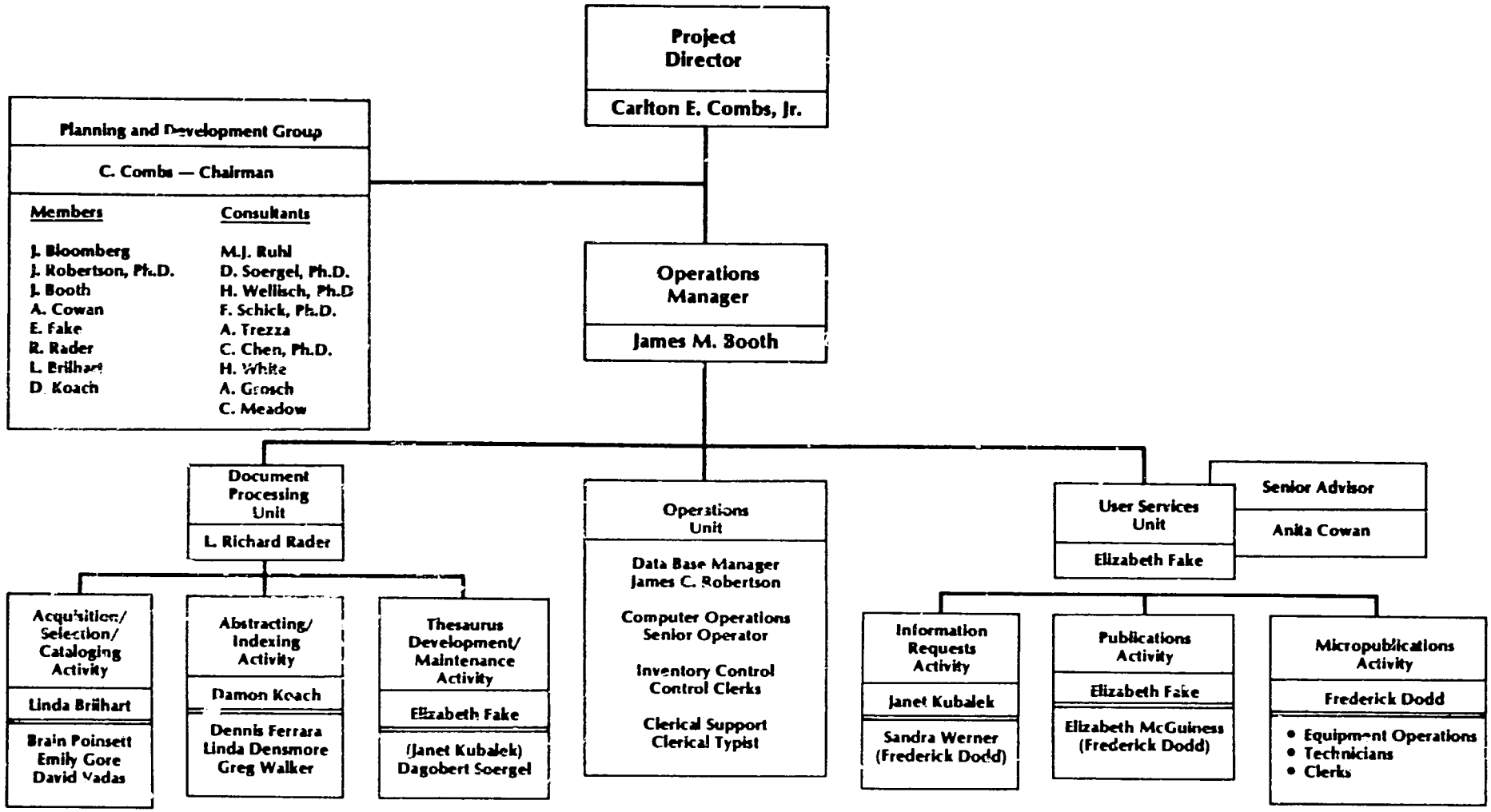


Exhibit 1 AID/DIHF PROJECT ORGANIZATION

- Ensuring that all technical resources required are made available in conformity with corporate commitments to A.I.D.
- Directing project and task planning and scheduling.
- Conducting periodic technical audits in specific areas.
- Reviewing budget and schedule commitments monthly to assure compliance with stated objectives.
- Attending project review meetings to evaluate corporate success in meeting contractual obligations.
- Acting as Chairman of the Planning Development Group with primary responsibility for the management and technical direction of all Phase I and Phase III tasks.

James Booth will manage the Operations Unit. Mr. Booth has extensive experience in the design and implementation of large information systems, management analysis, and administrative support activities. As manager of a staff of over 25 professionals, he developed systems and procedures that are in use in six clearinghouse operations being performed by CSG under contract. Mr. Booth also has experience directly applicable to this project in providing information services and programs to developing countries through his work at the Library of Congress in the P.L. 480 program. He has a Bachelor's degree and has been engaged in advanced studies in International Relations. As Supervisor of the Operations Unit, Mr. Booth's primary responsibilities will be:

- Integration and coordination of the Document Processing, Operations and Services Activities.
- Management of the Operations Activity to include computer operations, data base administration, and software support and enhancement.

The Document Processing Unit will be supervised by Richard Rader and the User Services Unit by Elizabeth Fake, as proposed in our original submission. Please note that, although Ms. Fake is not now an employee of CSG, she has been a major contributor to our proposal effort and has given us a firm, written commitment to join CSG and our DIHF project team immediately upon award of the contract.

In summary, we have restructured our project organization to: (1) provide A.I.D., in our Program Director Carlton Combs, with a single point of contact for the resolution of all technical and administrative matters, (2) commit James Booth to be the supervisor of the Operations Unit, a role for which he is well qualified by his experience in the creation and operation of six major clearinghouses for CSG, and (3) consolidate all DIHF management activities in the hands of four experienced individuals: Carlton Combs, James Booth, Richard Rader, and Elizabeth Fake.

C. User Service Emphasis.

As stated in the general approach of our proposal, "every information processing operation is based on an input/output model." Technical processing activities or inputs such as document selection, ordering, cataloguing, abstracting, indexing, editing, and data base management occur with a single objective for all engaged in these activities--to provide products and services, or outputs, designed to meet the needs of the information user. We are extremely sensitive to the importance of being responsive to the needs of the end user because we understand that DIHF products and services may be the only source of information available to the user.

Our proposal details a number of tasks and procedures that are processing activities. Much care and thought has been given to defining efficient and cost-effective methods of work flow for these activities. In addition, each task area has been examined to determine how it can be structured to be responsive to meeting user needs.

We have identified the following activities in our proposal as those whose effective management will have a direct bearing on ultimate user satisfaction.

System Design and Modification: In designing the new data base, close attention will be paid to the needs of all the users of the data base--both the indexer and abstractor and the end user who will query the data base.

As the new system is installed, tested, and refined, the planning group will evaluate the system and its products and services to develop more effective methods for meeting user needs.

Document Acquisition and Selection: The process of document acquisition and selection has been developed to be extremely responsive to the needs of the end user. Acquisitions activities include conducting a formal user needs assessment to determine the subject areas, kinds of information, data and supporting materials that users require.

Acquisitions activities will also include critical project identification and tracking, development of information exchange agreements and initiation of other projects designed to improve the quality of information in the data base with respect to the needs of the end user.

Abstracting and Indexing: The gap that exists between publication of research results and the appearance of a record of that publication in a secondary source such as ARDA can be a source of extreme frustration to the end user. The approach to abstracting and indexing activities outlined in the proposal is one that stresses the importance of streamlining this activity so that abstracts can be published as quickly as possible.

Development of a Thesaurus of AID Descriptors: The AID thesaurus will be both an indexing and searching tool. In order to serve the needs of both the information processor

and information seeker, its design incorporates a user-oriented vocabulary that includes comprehensive subject and geographical coverage, extensive lead-in vocabulary and potential for foreign language translation.

Quick Reaction Support Services: Because of the dynamic nature of large information service operations such as DIHF, unanticipated events may cause an exceptionally large flow of information requests or a requirement to distribute a high priority document. To meet this pressing need for information caused by unforeseen events, selected personnel in every unit of the DIHF operation will be trained to provide user services.

Streamlined Publications Production: Because most of the DIHF publications will be generated from the data base, personnel in the publications unit will be fully cognizant of document processing activities and will work with the abstractors and indexers to develop editorial processing and production procedures that will allow efficient and timely production of AID publications. In addition, emphasis will be given to developing attractive and legible new products that will be of interest to users.

Service Evaluation: A constant concern in the operation of the DIHF will be measurement of user satisfaction and readjustment of procedures to meet user needs. Alternative methods for measuring user satisfaction may be employed such as user response cards, telephone surveys, or user panel and advisory groups to evaluate products and services. Recommendations forthcoming from these activities will be summarized,

forwarded to the project office for review and actively implemented in ongoing programs.

Micrographics: Key to DIHF's on-demand delivery of information will be the retrieval power and flexibility of micrographics. By making available complete data base fiche sets, individual fiche duplicates, or paper reproductions, this system ensures that all A.I.D. retrospective and current development assistance information can be rapidly accessed by DIHF users.

Data base tapes transfer: Many international development organizations are currently building automated data bases. Building on DIU's exchange agreements with Canadian and British development assistance agencies, it is anticipated that exchange of data base tapes and documents with these and other development agencies will increase with the DIHF, thus increasing services to an ever-expanding audience.

Warehousing/Distribution: Just as outstanding acquisitions performance can improve the volume and quality of information available to users, an efficient warehousing and distribution operation will ensure that quality DIHF products reach requestors in a timely manner.

Database reports: The report generation power of the DIHF system will provide DIU management with additional means to control and direct the organization and delivery of all DIHF services.

II. RESPONSE TO SPECIFIC QUESTIONS

A. Introduction.

We have grouped our responses to the individual queries presented at the orals into functional groups to facilitate the presentation of this best and final response. The questions have been grouped into eight topics: (1) Transition Plan; (2) Micrographics Function; (3) Selection, Acquisition, and Cataloguing Functions; (4) Thesaurus Development; (5) HP 3000 and MINISIS Operations; (6) Phase III Approach; (7) Commitment of Staff Level by Phase; and (8) Client References.

B. Transition Plan.

Question: Further explain how CDSI will implement Phase I. In particular how will you assure a smooth transition in assuming the project responsibilities now held by various contractors, while at the same time integrating these functions into the overall project design. Address the transfer and implementation of on-demand services, microfiche services, and the publication of the January issue of ARDA. Include a milestone chart of key transition activities.

Response: A major hurdle to the successful establishment of the A.I.D. Document and Information Handling Facility will be the immediate integration and consolidation of the disparate information functions now being performed in-house at A.I.D. or by other contractors. The primary objective in this transition will be the creation of a comprehensive dissemination service to meet the program needs and information needs of the LDC counterpart institutions, A.I.D. Headquarters and A.I.D. field personnel. We have prepared a transition plan and schedule which identifies critical action items necessary to create this dissemination service and to ensure the earliest possible operational status of DIHF. Key elements in the transition plan are:

- Consolidation of all A.I.D.-furnished information collections in our facility;
- Creation of detailed written procedures for inventory maintenance, material receipt and shipment, and mailing list maintenance;
- Development of detailed written procedures for handling information requests, with particular attention given to priorities and pricing;
- Creation of detailed written plans and procedures for publishing of the A.I.D. Research and Development Abstracts (ARDA); and

- Acquisition of the Hewlett Packard minicomputer HP3000, associated software, and the MINISIS software, and the conversion of existing A.I.D. files for use by this system.

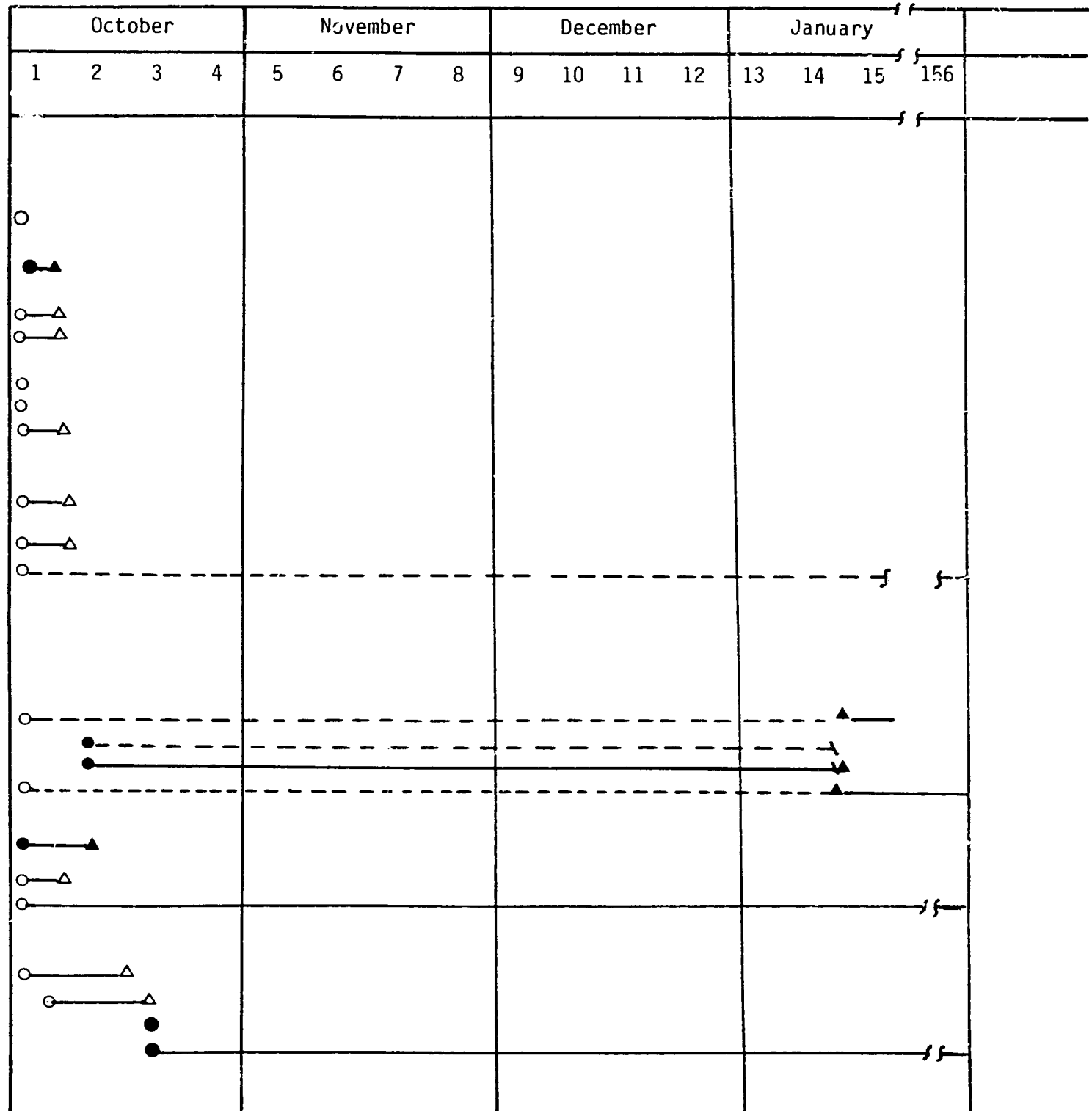
Our schedule for performing these five major activities is provided in Exhibit 2, Transition Plan and Schedule. The following paragraphs describe our approach to achieving the milestones identified in the plan.

We have reviewed with the incumbent contractor, SMA, Inc., the size of the current inventory of microfiche and hard copy documents and their procedures for warehousing, maintaining inventories and processing requests for these documents. Four microfiche cabinets and approximately twenty shelves of high demand documents are now maintained by SMA. Another 300 Federal record boxes of hard copy materials are retained in their warehouse. SMA has recently moved locations and, in doing so, found that the packaging, conveyance of all materials to the new location, and setup of operations was achieved in less than three days. A single trip by a 48 foot truck was used for the move.

Careful attention will be given to the packaging and drayage of the fiche masters, any diazo copies, containers and ancillary files and materials (inventories, indexes, manuals, surplus supplies, etc.). Any government-furnished equipment that is possessed by SMA or that is to be made available by A.I.D. should be identified, and arrangements made for it to be released to CDSI.

We have made arrangements with the firm of Victory Van Lines, Inc., of Norfolk, Virginia, to move this inventory on October 2, 1981,

EXHIBIT 2: TRANSITION PLAN AND SCHEDULE



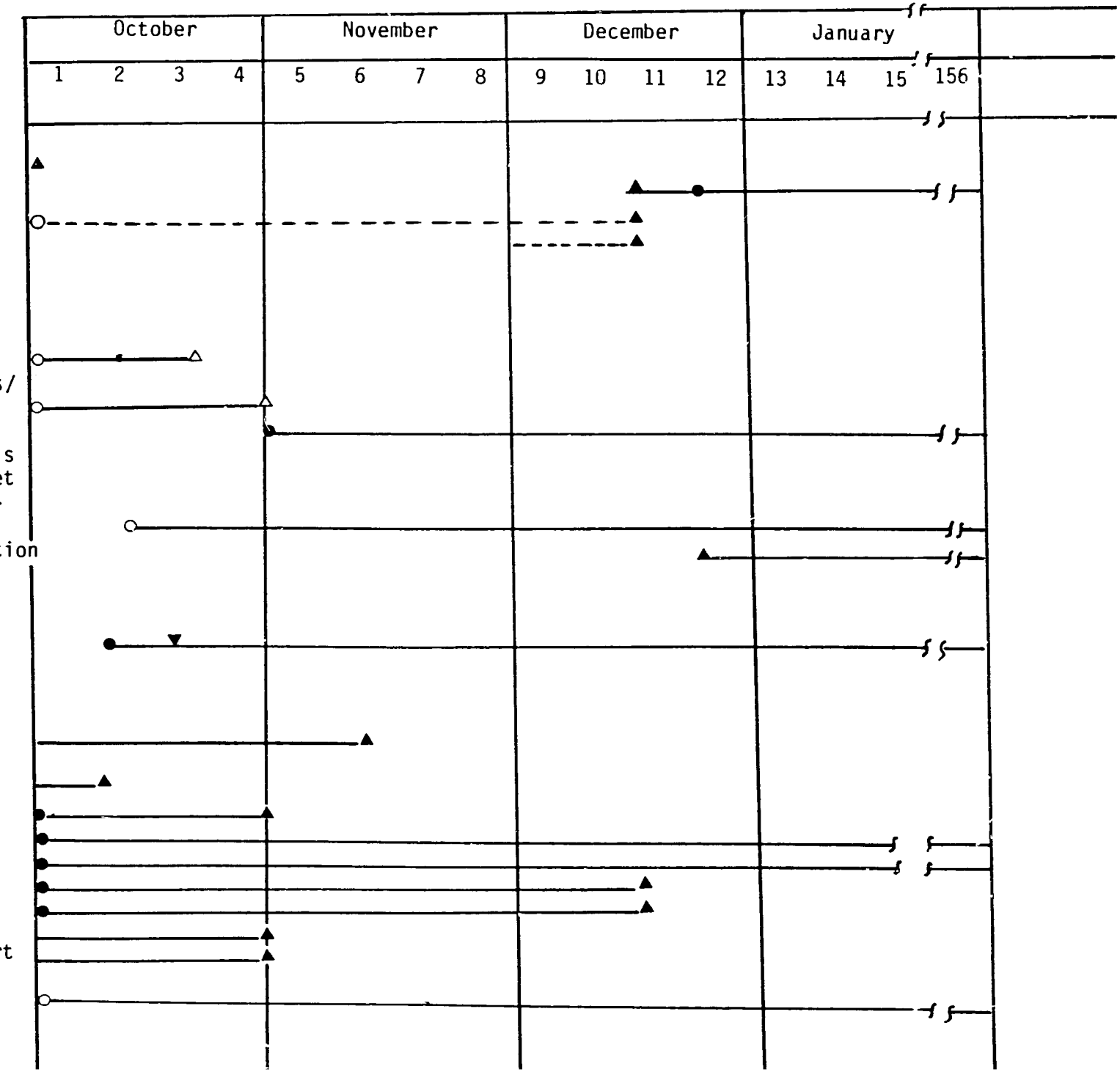
A. Consolidation of Collections

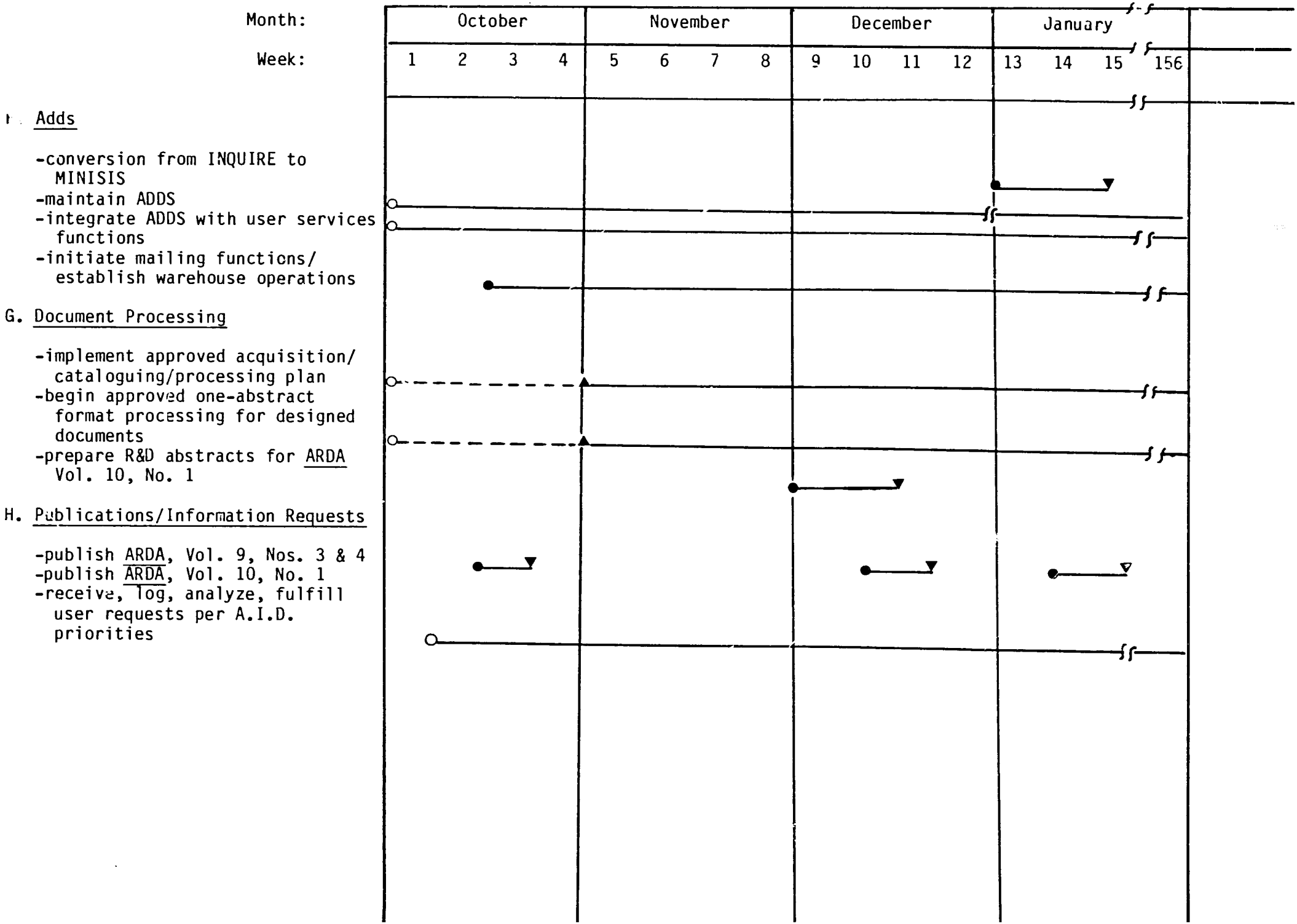
SMA
-assess holdings/procedures
-DIHF site preparation and inventory move to Bethesda/DIHF
COSTABILE
-assess OCLC status
-assess cataloguing status
LTS
-assess processing status
-assess inventory
-determine Phase I staff functions
DICs/ACQUISITIONS UNIT
-assess operations to be performed by DIHF
-determine immediate assistance needs
-assistance when requested

B. Equipment Acquisition/Operation

HP3000
-order placed (9/14/81)
-install/test (1/15/82)
-training
-interim service bureau operation
-onsite HP3000/DIHF operations
TERMINALS
-order placed
-install/test
-training
-operation
XEROX 970
-order placed
-install/test
-recruit operators
-training
-initiate operations/production

EXHIBIT 2: TRANSITION PLAN AND SCHEDULE




Month:
October
November
December
January
Week:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 156
F. Adds
-conversion from INQUIRE to MINISIS
-maintain ADDS
-integrate ADDS with user services functions
-initiate mailing functions/ establish warehouse operations
G. Document Processing
-implement approved acquisition/ cataloguing/processing plan
-begin approved one-abstract format processing for designed documents
-prepare R&D abstracts for ARDA Vol. 10, No. 1
H. Publications/Information Requests
-publish ARDA, Vol. 9, Nos. 3 & 4
-publish ARDA, Vol. 10, No. 1
-receive, log, analyze, fulfill user requests per A.I.D. priorities

TECHNICAL APPROACH

PHASE I: ESTABLISH THE A.I.D. FACILITY
(first 18 months--weeks 0-76)

Task 1. Implementation Plan and Scheduling

(weeks 0-6)	Activity 1.	Perform A.I.D. facility needs study
(weeks 6-9)	Activity 2.	Refine proposal plan/schedule
(week 10)	Activity 3.	Deliver oral/written reports
(weeks 10-12)	Activity 4.	Obtain approval of report
(weeks 10-14)	Activity 5.	Implement plan to establish/operate A.I.D. facility
(week 12)	Activity 6.	Distribute A.I.D. facility address to all identified users. Update as needed

Task 2. A.I.D. Facility System (AFS) Design and Modification

(weeks 0-10)	Activity 1.	Prepare AFS design and modification report
(weeks 10-12)	Activity 2.	Obtain approval
(weeks 12-16)	Activity 3.	Relocate existing contracted operations
(week 12)	Activity 4.	Implement new system

Task 3. Operations Manuals

(weeks 0-76)	Activity 1.	Develop systems manual
(weeks 77 and 154)		1. Obtain approval
(weeks 16-154)		2. Maintain
(weeks 77-154)		3. Distribute
(weeks 10-156)		4. Train approved personnel
(weeks 10-156)	Activity 2.	Develop processing & procedures manual
(weeks 77 and 154)		1. Obtain approval
(weeks 16-154)		2. Maintain
(weeks 77-154)		3. Distribute
(weeks 10-156)		4. Train approved personnel
(weeks 0-76)	Activity 3.	Authority Files
		1. Non-subject (institutions, countries/sectors, series, etc.)
(weeks 77 and 154)		1. Obtain approval
(weeks 16-154)		2. Maintain
(weeks 77-154)		3. Distribute
		2. Subject (Thesaurus, purpose, technical, special concern, subject classification)
(weeks 77 and 154)		1. Obtain approval
(weeks 16-154)		2. Maintain
(weeks 77-154)		3. Distribute

Task 4. Thesaurus (described in detail in Phase II, Task 3)

(weeks 0-6)	Activity 1.	Develop thesaurus plan
(weeks 8-10)	Activity 2.	Obtain approval

PHASE II: Operate the A.I.D. Facility
(weeks 0-156)

Task 1. Document Acquisitions and Selection

(weeks 12-156)	Activity 1.	Begin operations per approved plan
(weeks 12-156)	Activity 2.	Begin operating computer-based segments per approved plan
(weeks 11-156)	Activity 3.	Acquire project experience and R&D documents, journals, citations, serials and other documents
(weeks 11-156)	Activity 4.	Purchase serials and monographs
(weeks 0-11)	Activity 5.	Develop serials control method
(weeks 11-156)	Activity 6.	Select relevant articles from serials
(weeks 0-1)	Activity 7.	Devise document control numbering scheme
(week 1)		1. Obtain approval
(weeks 1-156)		2. Implement
(weeks 12-156)	Activity 8.	Acquire and validate ADDS data
(weeks 52, 104, 156)	Activity 9.	Update ADDS
(weeks 11-156)	Activity 10.	Identify development projects from books, other documents

Task 2. Document Processing

(weeks 11-156)	Activity 1.	Descriptive Cataloguing
(weeks 11-156)		1. Prepare standard citations consonant with authority files/operations manuals
(weeks 11-156)		2. Prepare skeletal record for project documents prior to abstracting and acquire additional related documents
(weeks 11-156)		3. Cross-reference text and bibliographic records
(weeks 11-156)		4. Catalogue books via OCLC
(weeks 11-52, possibly -156)		5. Maintain current card catalogue
(weeks 52-54)		6. Peform feasibility study for book catalogue
	Activity 2.	Abstracting
(weeks 12-156)		1. Prepare descriptive abstracts for project documents
(weeks 12-156)		2. Prepare informative abstracts for R&D, evaluation, and other documents
	Activity 3.	Indexing
(weeks 12-156)		1. Establish indexing guidelines
(weeks 0-12)		2. Assign descriptors to project, document, & institutional records

Task 3. Derive and Maintain a Thesaurus of A.I.D. Descriptors

(weeks 0-10)	Activity 1.	Develop thesaurus plan
(weeks 10-12)	Activity 2.	Obtain approval
(weeks 12-36)	Activity 3.	Complete draft version of integrated thesaurus
(weeks 36-38)	Activity 4.	Obtain approval
(weeks 38-52)	Activity 5.	Prepare final version of Thesaurus and establish online
(weeks 52-156)	Activity 6.	Maintain thesaurus online. Update operations manual
(weeks 52-156)	Activity 7.	Distribute the A.I.D. Integrate Thesaurus

Task 4. Microfilming and Micofiche Production

(weeks 16-20)	Activity 1.	Establish micropublishing operations
(weeks 20-156)	Activity 2.	Develop capability for reproducing the entire microfiche file or parts thereof in diazo or paper copies
(weeks 20-156)	Activity 3.	Develop capability to generate photocomposed microfiche headers

Task 5. Operate the Information System

(weeks 16-22)	Activity 1.	Convert A.I.D.'s tapes of current sytem to A.I.D. facility system (AFS)
(weeks 10-56)	Activity 2.	Provide ongoing data entry and database maintenance of the AFS
(weeks 12-156)	Activity 3.	Provide database products as required 1. photocomposition driver tapes 2. special bibliographies 3. online searches in response to user queries 4. document tracking records 5. work status reports
(weeks 26, 52, 78, 104 130, 156)	Activity 4.	Provide semiannual AFS master tape (in ISI format) with specifications and documentation
(weeks 26, 52, 78, 104 130, 156)	Activity 5.	Prepare periodic transmittal tapes of A.I.D. R&D projects for 1. SSIE input 2. NTIS input (and deliver reports and record accession numbers on AFS)

Task 6. Respond to Requests for Information

(weeks 10-156)	Activity 1.	Receive, log, analyze, and fulfill information requests per A.I.D. priorities and time limits
(weeks 10-156)	Activity 2.	Establish and operate a warehouse facility to store and disseminate authorized A.I.D. information materials
(weeks 10-156)	Activity 3.	Maintain records of all dissemination transactions
(weeks 0-156)	Activity 4.	Provide Washington area messenger service

Task 7. Publications

	Activity 1.	ARDA
(weeks 0-10)		1. Submit recommendations for improving
(every 13 weeks after week 10)		2. Submit drafts for approval
(every 13 weeks after week 12)		3. Publish and distribute quarterly
	Activity 2.	CRLD
(weeks 0-10)		1. Submit recommendations for improving
(weeks 88-94)		2. Submit drafts for approval
(week 96)		3. Publish and distribute
	Activity 3.	Current awareness bibliographies and lists
(every 13 weeks after week 26)		1. Submit for approval 20 A.I.D.-defined current awareness products/year, five/quarter
(every 13 weeks after week 28)		2. Publish and distribute approved products

Task 8. Program and Operations Management

	Activity 1.	Service evaluation function
(weeks 36-52)		1. Design an evaluation plan for AFS services
(weeks 52-54)		2. Obtain approval and implement evaluation function
(wweks 78, 104, 130, 156)		3. Submit semiannual services evaluations
	Activity 2.	Quality assurances function
(weeks 36-52)		1. Design a quality assurance plan for AFS outputs
(weeks 52-54)		2. Obtain approval and implement function
(weeks 52, 56, 60...156)		3. Submit monthly quality assurance reports
	Activity 3.	Reports
(weeks 4,8,12...156)		1. Submit monthly progress reports
(weeks 52, 104, 156)		2. Submit annual reports
(week 156)		3. Submit final report
		4. Submit others elsewhere described:
		1. implementation plan
		2. system design and modification
		3. systems manual
		4. processing and procedures manual
		5. database transfer
	Activity 4.	A.I.D. facility evaluation
(weeks 128-130)		1. Participate in facility evaluation

PHASE III. Transfer the Development Information Database
(last 18 months--weeks 80-156)

Task 1. Feasible Methods of Transferring Information/Microcomputer Prototype

	Activity 1.	Study plan
(week 80)		1 Propose a plan to identify methods of transfer
(weeks 80-82)		2. Obtain aoproval of study plan
	Activity 2.	Implementation plan
(week 100)		1. Propose a plan to implement approval methods
(weeks 100-102)		2. Obtain approval of implementation plan

Task 2. Implement Transfer Program for LDC institutions/A.I.D. missions

(weeks 12-104)	Activity 1.	Develop, test and make operational a prototype minicomputer-based development information system for the A.I.D. facility
(weeks 104-156)	Activity 2.	Provide technical assistance (manuals, training, etc.) to transfer the complete prototype system to A.I.D.-designated LDC institutions and missions
(week 156)	Activity 3.	Submit a final report on information transfer

pending award of the contract. James Booth and Janet Kubalak, supervisor of the Information Requests Activity, will meet with SMA on Thursday, October 1, 1981, to review the physical inventory, the status of all information requests, and mailing list maintenance procedures. Based on their review, written instructions will be developed for the mover. These instructions will identify the location, within SMA, of all materials to be moved, the sequence in which they are to be loaded, and a checklist to be used to ensure that all materials are accounted for.

Concurrent with the packaging and shipment of materials from SMA to the DIHF facility in Bethesda, all necessary shelving and cabinet space will be made available to receive the materials. Mr. Booth and Ms. Kubalak will direct the unloading and placement of materials in the DIHF on Saturday, October 3, 1981. The physical plant layout for the DIHF at CDSI in Bethesda, Maryland, is depicted in Exhibit 3, Proposed Floor Plan.

Upon award, orders with Xerox Corporation and A-M Bruning will be made for the enlarger/printer and fiche duplicator. A subcontract with REMAC will be consumated for the filming operations.

Upon receipt of the microfiche collection, the working masters will be housed in the DIHF operations facility located at CDSI, 7222 47th Street, Bethesda. This location will make them available for use in the standing-order requests, on-demand copying or blow-back operation.

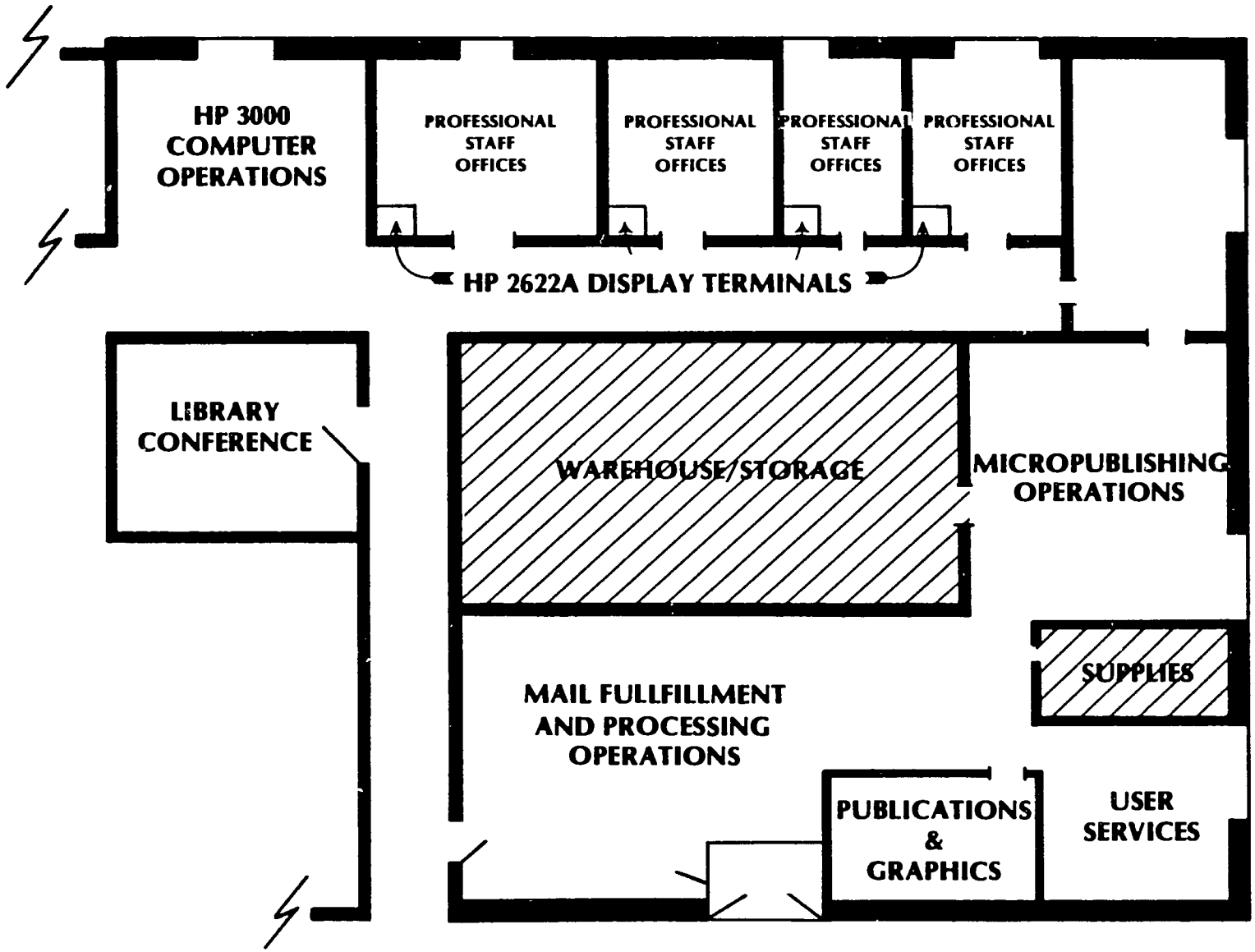


Exhibit 3 PROPOSED FLOOR PLAN FOR DOCUMENT AND INFORMATION HANDLING FACILITY

We propose that, upon receipt of the fiche collection, the entire collection be carefully analyzed to determine the status of quality of the collection resulting from current use; that the collection be inventoried and placed in document number sequence; and that any discrepancies be brought to A.I.D.'s attention immediately so that appropriate action can be taken. Any damaged fiche could be repaired or, if necessary, remade.

Until the micropublishing unit is fully operational, CDSI will use a local vendor to fulfill the contract's requirements. REMAC, of Gaithersburg, is proposed as our subcontractor to perform the microfilming tasks throughout the duration of the contract. They will also assist us in the initial three months in responding to microfiche duplication requests pending the installation and start-up of our own production capability. During the interim, until our facility is on-line, the working masters will be housed at the production vendor's facilities. The archive set (original masters) will be housed in a separate CDSI facility located at 7315 Wisconsin Avenue, also in Bethesda.

Both sites are air conditioned, secure, and have fire protection devices. The collections will be housed in metal containers that will further protect them.

As new fiche are created, they will be added to the collection upon receipt from the filming subcontractor, and upon acceptance of the lot. Such acceptance will require the output conform to our quality control standards.

Ms. Kubalak will then prepare, for A.I.D. review, a brief draft of interim information request processing procedures for handling current requests. Upon review and acceptance by A.I.D., processing of requests could begin as early as Monday, October 5, 1981.

Another major element in our transition plan is the acquisition of computer hardware and software necessary to establish the development information system in the DIHF.

An order for the necessary hardware and software described in detail in Section F of this best and final response has been placed with the Hewlett Packard Corporation, contingent upon award of the contract. Hewlett Packard has given us an expected installation date of January 15, 1982. HP engineers have been helpful in sizing the MINISIS application and have committed to assisting in preparation of a site implementation plan to be completed by Friday, October 30, 1981 Any structural modifications required to house the HP3000 hardware will be initiated immediately upon completion of the site implementation plan. Tentative reservations have been made for four DIHF personnel and four A.I.D. staff members to attend the next HP3000 training seminar to be presented on Friday, October 9, 1981.

Because DIHF computer resources will not be on-site when the contract is awarded, we have secured the necessary computer availability to begin implementation of the MINISIS system on the day of contract award. Business Computer Services, Inc. (BCS), a Hewlett Packard service bureau with three HP3000s, has given us a written

commitment placing the necessary hardware and software resources at our disposal. Two HP terminals, model 2622A, will be installed in the DIHF immediately after contract award. Systemhouse, Inc., sole vendor of MINISIS in the United States, has committed to the implementation of MINISIS on the BCS hardware within ten working days of contract award. Their support of the conversion effort was described in our original proposal submission and was documented in a letter of commitment from Systemhouse, also included in our proposal.

Another area of concern in the transition is publication of the A.I.D. Research and Development Abstracts (ARDA).

Currently, management of ARDA involves several processes in six locations. Asta Teemant acquires and selects the R&D documents included in any given issue. These documents are then sent to Maxima for abstracting. The final DIU-approved abstracts and the entire document collection are then sent to LTS via DIU. LTS then edits, compiles, and indexes the issue and performs the artwork prior to managing the typesetting, printing, and delivery of the entire issue to A.I.D.'s chosen distributor. Vol. 9, Nos. 3 and 4, will be produced in this manner between September and December 1981.

Beginning with Vol. 10, No. 1 (January 1982), all publication activities except the document selection process will take place in the DIHF. Selection, abstracting and editing, and all other steps prior to creating camera-ready copy must be completed no later than January 8, 1982, in order to ensure that Vol. 10, No. 1, will be ready for distribution by the end of January 1982. These and

all other matters regarding Vol. 10, No. 1, production and scheduling were discussed and agreed upon with Asta Teemant during the first week in September 1981.

Still to be worked out regarding Vol. 10 are matters of style, layout, graphics, etc., which will be finalized in Phase II, Task 7, Activity 1, during the period of October through December 1981.

C. Micrographics Function.

Question: Further explain your management plan for the microfiche processing component. When will materials be processed? Please address quality control. What types of equipment will be purchased? Who will operate the equipment and what training will the operators receive? Address the distribution of the microfiche, especially in conjunction with the publication of ARDA.

Response: CDSI's approach to the micropublishing component of the DIHF is predicated upon its understanding of A.I.D.'s desire to overcome previous operational difficulties and to consolidate the micropublishing activities with the the acquisitions/document processing and the user services functions. To achieve this objective, we propose to establish a dedicated micropublishing operation at the DIHF to perform these tasks. This component of the facility will require careful planning and systems development, equipment purchase/rental, personnel training and development, and careful management to achieve the level and quality of output expected. However, due to the relatively small volume and need for top quality, we propose to subcontract the filming and master fiche processing to a local firm with the appropriate equipment.

A.I.D.'s microfiche filming requirements are not large enough to justify the investment in equipment and resources we had originally proposed, especially in view of the stringent processing requirements to create silver halide masters of lasting quality. To obtain and install the equipment that the project demands would be too costly in light of the anticipated volume.

Our analysis, based upon the RFP specifications, indicates that A.I.D. will require the DIHF contractor to film approximately

1,500 uncopyrighted documents each year of the contract. Since documents vary in length, some may yield more than one fiche. We estimate this level to be about 50 percent of the total. Therefore, our analysis indicates the filming yield to be:

Source Documents	Total Frames	Resultant Fiche [containing 96 frames]
750 @ 50 pps.	37,500	750
750 @ 150 pps	112,500	1,125
1,500	150,000	1,875

In summary, 1,875 new fiche of an estimated 1,500 documents will be added to A.I.D.'s extant collection of 10,000 documents (15,000 fiche) each year of the contract.

Since this volume does not justify the expenditure of costs to establish a filming operation in the DIHF (without having sufficient other work to cover its costs), and since CDSI does not possess the equipment at present, we propose to subcontract the filming and master fiche processing to:

REMAC
Quince Orchard Road
Gaithersburg, MD

They possess a full complement of equipment and processing facilities, and can guarantee both the quality and turnaround time required. We understand that A.I.D. will inspect REMAC's facilities and, to avoid repetition, we have not included a full description of their set-up. By using REMAC, we can guarantee A.I.D. the desired quality and at a reasonable price. As A.I.D. may be aware, few vendors of micrographics services in this area are eager to

accept jobs of this small size since start-up and operational costs for using such sophisticated equipment need to be spread over larger volumes to make the work economically reasonable.

Management of Filming Function: Our plans call for the initialization of bibliographic records on the proposed MINISIS/DBMS and the subsequent processing of the documents through all stages of selection, cataloguing, abstracting, and indexing prior to filming. Because of the close proximity of the filming subcontractor to the facility, it will not be necessary to remove the document from the processing flow for longer than a 10-day period, and, even so, this step will occur at the end, after all other processing steps have occurred.

Once these steps are completed, the document will be analyzed for filming to determine its reproducibility. Previous processing checks will have determined if any copyright provisions would be violated and permission should be obtained before filming. Problem situations will be resolved in conjunction with AID.

Documents scheduled to be filmed will be disassembled and made ready (such as assigning correct pagination, arranging for oversize document reduction, etc.) and then forwarded to REMAC. A printout of the abstract from the DBMS will accompany the document for filming as the face page.

Once the filming is complete and the film processed, technicians will check the quality of the fiche before releasing the documents (see discussion on Quality Controls below). Any needed

corrections will be made at this time at the subcontractor's facility. The documents will then be returned to A.I.D. according to preestablished schedules.

The result of this stage of processing will be the creation of a silver halide master fiche which can be used to create (1) a duplicate silver master; (2) diazo copies (fic to fiche duplication) from the silver duplicate; or (3) paper copies using the silver duplicate by the use of an enlarger/printer. The original silver halide master fiche will be added to A.I.D.'s archive collection. The duplicate master fiche will be placed in the working collection for use in production.

Two options are available for creating the duplicate master fiche. Option one will be to film each document twice. This will guarantee quality of the fiche but is a costly, labor-intensive operation. A second option, which we propose, will be to duplicate the second silver master fiche by making an internegative resulting in an intermediate silver halide negative which will be used to create diazo copies. REMAC has the necessary equipment to create quality silver duplicates.

At this stage, the filming operation is complete.

Management of Micropublishing Functions: Based upon our understanding of the RFP, A.I.D. will require the DIHF operator to duplicate the fiche collection, duplicate certain fiche, and make paper copies of certain fiche based on user requests. Our plan calls for the creation of a micropublishing operation at the DIHF to perform

the fiche duplication and paper copy production. We intend to locate this equipment in a designated area of the facility that has appropriate electrical supplies, is vented to expell the anhydrous ammonia fumes from the diazo copier, and offers ample working space for supplies, job set-up, inspection and assembly of products. By having this facility under one roof, with other facility operations, such as document processing and user request fulfillment, we believe that we can supply A.I.D. with a more responsive capability than by using outside vendors for this aspect of the work. We are also certain that economies can be realized.

We estimate the following volumes:

	Year 1	Year 2	Year 3
No. fiche in existing collection	15,000+	16,875	18,750
Added each year	1,875	1,875	1,875
Total fiche	16,875	18,750	20,625
No. diazo sets	10	15	40
Total fiche (sets)	168,750	281,250	825,000
No. single copies	10,000	10,000	10,000
Total diazo copies	178,750	291,250	835,000
No. of paper copies	575,000	575,000	575,000

Based upon these considerations, the DIHF must have the micropublishing capability to produce at least these volumes. We envision that requests for fiche duplication and paper copy blowback will come periodically throughout the contract duration and that no regular, periodic schedule exists at present although certain

standing orders do exist. We do recognize, however, that with the micropublishing and distribution capabilities under one roof, many more services are possible. Currently, microfiche distribution and ARDA publishing are performed by different contractors in separate facilities. Because these functions in the DIHF will be carried out within one facility by one contractor, the value of these two services to users will be enhanced. For instance, once the processing of R&D documents for a given issue of ARDA has been completed and the text of ARDA sent for printing, the documents will be filmed and the fiche set aside for later combination with the published issue of ARDA. Combining any given issue of ARDA with its representative fiche to form a set would increase both the speed and flexibility of response to user needs. Complete sets would automatically be distributed to such users as the Library of Congress. Should the set be required for any other reason, this organization of fiche distribution and ARDA publication would speed retrieval for more rapid distribution.

Response for on-demand requests for fiche, blowbacks, bulk shipments, or single copies would also be improved. By having this duplicating, blowback and distribution capability centralized, a variety of system enhancements that can make this aspect of the project more responsive become possible.

Fiche-to-fiche duplications will require the selection of the fiche to be duplicated from the master collection, organization and set-up, and actual duplication. CDSI's plan will be to install a Bruning OP59 fiche-to-fiche duplicator and a Xerox 970 enlarger/

printer. The duplicator will allow us to respond to both single user requests and A.I.D. requests for the entire set. The equipment that is available within a 60-75 day period can be obtained on GSA schedule, requires minimal operator training, and creates fiche with a resolution that exceeds the RFP standard.

The enlarger/printer will be used to enlarge and print paper copies from the fiche. Based upon the projected volumes, we are proposing to install a Xerox 970 enlarger/printer to handle the estimated 47,000 per month on-demand copies. The machine can be delivered by mid-October 1981, according to current Xerox delivery schedules, and arrangements have been made with local service bureaus to fill the void until such time that our equipment is installed. Our analysis indicates that the Xerox device is ideally suited to this type of operation and, since it is easy to operate, we can train an operator who will be used approximately half time for production and half time on filing, assisting in fiche duplication operations, and ancillary micropublishing tasks.

As requests are received at the user services unit, they will be logged-in, analyzed, batched, and forwarded to the micropublishing unit for processing. A simple control sheet with designated checklists, places for operator initials and dates/times will accompany each batch. Multi-part forms will not be required.

Once the duplication is complete, the masters must be reinserted and refiled; and the copies checked and inserted in envelopes, packaged and forwarded for distribution. Requests for the entire collection will require extensive labor set-up since each

fiche must be hand-inserted. Since we do not know the exact schedule as to when the fiche will be required, it will be our plan to produce 10 complete sets of the fiche soon after the contract is awarded and the collection is analyzed and made ready for production. This work we would subcontract to REMAC until such time as our equipment becomes on-line.

These sets of the existing collection would then be available for distribution. Additions will occur each month thereafter so that the collection remains current on a monthly basis. During each monthly processing cycle, a sufficient number of fiche of the new materials will be made and added to the remaining complete sets. This will then permit us to distribute an up-to-date set of the entire collection upon demand. We also propose to distribute sets of the new materials via standing orders on a periodic basis to those installations that have already received sets of the collection so that their holdings will be kept current on a regular basis.

Quality Controls: For filming, we will insist that the subcontractor apply NMIS Standards and perform resolution and densitometer checks in the filming process. Each fiche will be visually checked and a control procedure will be established to inspect individual frames/fiche of a randomized sample under microscope. NMSI test control strips will be run through the system at periodic intervals to serve as benchmarks to check on batch qualities, and to make certain that the camera, developer, and film qualities are constant. DIHF staff members will also perform in-house spot

checks on materials delivered and accept/reject work based upon compliance with established standards.

For fiche duplication, procedures to be followed will include: periodic cleaning of the machine; adequate machine warm-up; a densitometer or visual diffuse filter check of the developer; exposure checks over the entire fiche using a visual diffuse filter to determine if lamps are aging or have misaligned mirrors or dirt on the platen or glass; negative control masters to check same day or previous day runs; and a physical inspection of the machine to check for damage such as scratching to base or film coating. We will spell out the exact procedures in greater detail as part of our initial systems design phase.

Personnel: We propose to assign Fred Dodd of CSG to manage the Micropublishing Unit. His primary responsibilities will be (1) setting up the controls and procedures to be followed in the filming (including monitoring the work of the subcontractor); and (2) coordinating the establishment of the Micropublishing Facility including the acquisitioning and scheduling of equipment installation, the internal procedures and systems, the quality controls, and the reporting and monitoring procedures. Mr. Dodd has been responsible for overseeing CSG's work with NSF, whereby NTIS performs microfiche operations for its work in a manner similar to the approach we propose herein.

He will recruit the operators of the Bruning fiche duplicator and the Xerox enlarger/printer. Our plan will be to recruit an experienced microfiche duplicator operator to run the Bruning and

serve as the day-to-day coordinator of the operation. The Xerox 970 operator will also be trained on the Bruning to serve in the absence or illness of the working supervisor, thus avoiding potential production delays due to personnel problems. Since the flow of work will be uneven, these individuals will be available to do other tasks such as assisting in mailing operations, preparing materials for processing or other required activities.

Training the operator on the specifics of the Bruning will be achieved by an intensive session with representatives from A-M Bruning. We will have a service contract with them to provide assistance when problems arise and will maintain a store of replacement parts and supplies to perform repairs/trouble-shoot without major production disruptions.

Cost Considerations: We have carefully considered the comments made at the oral discussions and have reviewed our proposal in light of the expressed concerns. We believe that a more efficient process will result from this review and A.I.D.'s investment in this enterprise will prove successful.

We have concluded that the filming operation can best be performed by a vendor; we cannot avocate establishing a filming operation in the DIHF. However, we can establish and operate a micropublishing operation more efficiently and less expensively than can be obtained through the use of vendors.

In support, we have prepared a comparative analysis of in-house versus vendor supplied costs. These results show a significant

savings for A.I.D. We recognize that A.I.D. will be placing trust in our ability to perform the work as required while starting up the operation. We have the expert assistance, experience and knowledge to design and manage the operation and propose to develop a dedicated DIHF on A.I.D.'s behalf.

D. Selection, Acquisition, and Cataloguing.

Question: Comment on and explain the organization and management of the proposed acquisitions, cataloguing, and indexing activities. Also, explain the qualifications of the personnel proposed for the positions in those activities, particularly in OCLC and AACR2.

Response: During orals, the response to this question described briefly the expertise of the proposed personnel and noted that, even though an organizational chart presents clear lines of authority, there would be no strict lines of division in performing work for the A.I.D. Facility. Regarding acquisitions and cataloguing functions, we recognize that there is a natural division of the facility operations into traditional library activities and not-so-traditional activities peculiar to A.I.D. documentation. There seems to be no question that the individuals we proposed are thoroughly qualified to perform effectively in resolving difficulties with A.I.D. documentation. Concerning the more traditional library functions, there appear to be uncertainties regarding both our proposed staff and our management approach.

Perhaps a brief statement of our facility management intentions and experience will assuage concerns over both this matter and others which may occur to DIU personnel. This statement will be followed by a preliminary description of how we intend to acquire A.I.D. documentation.

Management: It is anticipated that the strengths of individuals, based on their experience and abilities, will determine how resources

are applied to perform any facility task. Conceptually and operationally, we view every employee as working for the users of A.I.D.'s facility. This means that to accomplish any given task, managers may draw upon expertise resident throughout the entire facility--regardless of company affiliation. For example, during the last five years, LTS staff has built the primary DIS databases of TEXT and BREF as well as the DIS thesaurus, published ARDA, maintained ADDS, maintained authority files, assisted in DIU acquisitions, and provided support to DIU and other Agency staff on user services questions. In performing these activities, the LTS document processing staff has had one clear perception of its function and that is user service. In anticipating user needs and expectations, the staff's guiding principle has been that the quality of the information going into the database determines the quality of the information the user draws from the system. In the process of providing that information, the current LTS staff has acquired in-depth knowledge of A.I.D. documentation, the mission, and the program of the Agency and DIU, as well as a collective 20 years of experience. Thus, the document processing staff is uniquely positioned to make strong contributions to all user services activities, particularly those which require the thorough knowledge of database content and authority files necessary to provide the best possible response to user queries and to generate publications and database products.

Experience: The day-to-day supervision of A.I.D. facility employees involved in identification, acquisition, selection, and cataloguing of A.I.D. documentation will be performed by Linda Brilhart. Ms. Brilhart has four years of direct experience dealing with the problems of AID-generated project design, implementation, evaluation, and R&D documentation. As temporary assignments, she has participated in the acquisition of documents from various A.I.D. offices, as described above, and worked nearly 5 months in DIU's acquisition unit. In addition to performing her abstracting and indexing responsibilities during that 6 month period, Ms. Brilhart assisted DIU in nearly all phases of their operation. Her expertise was not lost, however, since she continues to assist that unit in the creation of accessions and "pipelines" listings and in the development of cataloguing guidelines for A.I.D. documentation. Those familiar with the many varieties, vagaries, complexities, inconsistencies, and errors resident in A.I.D. documentation will readily recognize the value of continuity in expertise in dealing with these problems. Ms. Brilhart currently trains all new employees of DIU's technical processing operation in these matters and has many hours of experience querying A.I.D.'s current DBMS to resolve document processing and cataloguing problems in essentially the same manner she would under the DIHF. The perceived lack of a professional degree in library science is more than compensated for by her four years of on-the-job experience in dealing with A.I.D. documentation. In this regard, it should be recalled that the government permits substitution of relevant

experience for formal education in meeting job qualifications. Ms. Brilhart has her B.A. in English.

Assisting Ms. Brilhart will be Emily Gore and Brian Poinsett. In addition to her M.S.L.S., with specialization in medical librarianship, Ms. Gore has a B.A. in chemistry. She also has direct experience working with A.I.D. documentation, has worked in both reference and interlibrary loan activities, and is experienced in the use of MEDLINE. At the National Library of Medicine, Ms. Gore was responsible for recataloguing medical serials for the computer union catalogue SERLINE. At the Human Services Institute, she was responsible for the operation of their entire library.

Brian Poinsett has a B.A. in International Affairs with a concentration in International Economics and is the recent recipient of several awards, including membership in Phi Beta Kappa. At the Gelman Library of George Washington University, he processed all monographic orders placed by the library, verified invoices, conducted correspondence and problem-solving, developed operational procedures, and implemented a new file system for standing order accounts. He has two and one-half years of experience in OCLC on-line bibliographic searching. He is also experienced in A.I.D. documentation.

Jo Anne DuChez has an M.L.S. and a B.A. in social science. As an Information Specialist with CSG, she has been directly responsible for development and maintenance of a computerized serials control system. She has also served as the chief acquisitions librarian for CSG company projects. In addition to

her technical expertise, her academic background in the social sciences and sociology provides the level of subject expertise required to evaluate and select items for the database.

Iris Anderson has a B.A. and an M.L.S. from Queens College. She has wide experience in acquisitions and original cataloguing as a result of her work as Assistant Librarian with the R.R. Bowker Company. Ms. Anderson also gained considerable experience working with the MARC format in her editing activities at Bowker. At CSG she serves as a Technical Information Specialist for the Engineering and Applied Sciences support contract. In this capacity, she provides abstracting, indexing, original cataloguing, and editing support for a large scientific database.

Ms. Du Chez and Ms. Anderson, whose resumes follow, are added to the proposed Selection, Acquisitions, and Cataloguing team. They will work primarily on serials, books, and monographs as described later.

Acquisition of AID-generated Documentation: A smoothly operating acquisitions program will improve all follow-up activities dependent on complete collections of relevant development documentation. Ultimately, improving acquisition improves user services. Therefore, we outlined in our proposal an active plan for the identification, acquisition, and selection of A.I.D. project design, evaluation, and AID-funded R&D documentation. (Discussion of monographs, serials, and other A.I.D. and non-AID materials will follow comments on acquisition and cataloguing of design, evaluation, and R&D documents.)

We will obtain all relevant development documentation through a process that combines the information scientist's regard and concern for a user-oriented collection with the computer scientist's expertise in developing responsive systems. First, we will work with DIU in formulating and implementing an overall acquisition plan. Currently, we envision elements of this plan to include:

- A formal directive from A.I.D.'s Administrator requiring timely delivery to DIU of all appropriate project design, implementation, and evaluation documentation. Such a directive would legitimize our subsequent requests for documents and thereby greatly facilitate our work.

- A strong working relationship will be established with A.I.D. personnel responsible for document production, control, and distribution throughout the Agency. To follow-up on the directive, DIHF personnel would begin this public relations effort with telephone calls and visits to A.I.D. bureaus and offices to inform responsible officials of A.I.D.'s new DIHF, to explain the basis of the need for documents, and to make clear that they too will be beneficiaries of DIU's many valuable services.

- Regular contact with A.I.D. offices, because desk officers and other personnel are frequently rotated.

- Continuation of this effort by determining what documents are currently available and when new documents are expected. This work would build on several mechanisms already in place in the Agency. For instance, in regard to A.I.D. evaluations, we would:

  1. obtain the Agency Evaluation Plan and the Regional Bureau Quarterly Receipts Reports to use as accession tools. We would check off those received and pursue those not received.

  2. consult with PPC/E regarding which evaluations are priority items and which items they would like to have receive special treatment (as was recently done with PPC/E's Impact Evaluation in ARDA, Vol. 9, No. 2 and in BREF).

  3. scan project papers to learn of planned evaluations and their due dates.

4. either use A.I.D.'s COORS system interactively or obtain schedules of deliverables through A.I.D.'s Contracts Office for use in tracking evaluations (as well as AID-funded R&D and other studies).

5. seek to include a statement of requirements, procedures, and bibliographic processing forms in every contract, task order, work order, delivery order, amendment, and grant issued by the Agency that would require deposit of a copy of all technical reports, papers, documents, or other deliverables with DIU as part of the contractual obligation of A.I.D. contractors or grantees.

6. create a new field for use in the descriptive cataloguing process in which the date of the next scheduled evaluation (PES, Special, Final, etc.) would be noted. As part of our document tracking system, we could thus generate lists of projects for which specific documents are scheduled.

- Taking advantage of Agency mechanisms to identify project design documentation. For instance, A.I.D.'s Near East Bureau maintains status reports by stage of all planned project activities; the Africa Bureau will soon be using a system to permit tracking on all obligations on a quarterly basis; A.I.D.'s Office of Financial Management provides a quarterly report on all active projects; and PBAR lists all approved projects. DIHF personnel would regularly compare these listings with DIU's holdings to produce a listing of projects to be acquired. Documentation describing these projects would then be actively sought, acquired, and processed.

- Availability of DIHF personnel to xerox documents of which only copies exist. We anticipate the need for this activity would lessen as DIHF personnel develop confidence in Agency personnel for document return.

- User needs assessment to focus limited acquisitions resources on obtaining those documents and other materials considered most relevant to expressed and anticipated user needs.

- Tracking key projects for immediate acquisition of documents upon availability instead of via routine delivery schedules.

- Active cable correspondence with A.I.D. Missions to seek their cooperation in providing documents and to inform them of services available through the facility, and to establish a communications/document pipeline.

- Information exchange agreements with other international development and private voluntary organizations, federal agencies, and private/commercial organizations in order to operate cooperative acquisitions and processing programs.

- Acquisition of information materials in machine-readable formats.

We would like to emphasize that the DIHF personnel proposed for the identification, acquisitions, and selection activities have performed many of these activities under contract with A.I.D., and thus are prepared to use their background and expertise in this effort.

Cataloguing of AID-generated Documentation: In addition to assisting the acquisitions process, DIHF personnel will be responsible for processing and descriptive cataloguing of these documents prior to shipment for abstracting. With regard to A.I.D. project design, evaluation, and R&D documents, document processing prior to analysis, abstracting, and detailed indexing will consist of two stages. First, it must be determined if the document is a priority document according to AID-issued guidelines, and second, a check must be made to see if a record of the document has already been created and placed on the system. The next step will be to assign a document control number and a bibliographic typecode. After it has been determined that the document at hand is a priority item and after any problems with the document have been resolved, cataloguing information will be posted on the system. Such information will include the document control number, the project number, bibliographic typecode, author,

supporting organization and address, pagination and other pertinent identifying numbers, and initial index keywords.

The advantages to this method of initial document processing are numerous and cost-effective. Most importantly, however, A.I.D.'s users will have a bibliographic entry on the system before the full technical processing is complete, and replicative efforts in document handling will be eliminated.

A detailed description of our proposed cataloguing of AID-generated documentation may be found on pages 12-20 of Section II; a description of problem resolution and pre-abstracting cataloguing is found on pages 19-22.

Acquisition and Cataloguing of Serials, Books, and Monographs: Several system options are available for use by our proposed acquisitions and cataloguing staff. An OCLC system being developed by DIU's current cataloguing contractor is scheduled for operation by October 1981 (according to RFP amendment no. 2). If this system is not operational, we will continue use of DIU's current system (at whatever level is necessary beyond DIU's current contractor load) while assisting in bringing to operational status the OCLC system.

We are assuming that DIU's current serials subscription service would be retained at least until the end of its contract, and that thereafter we would consult with DIU as to the desirability of retaining the service or taking on the function ourselves via OCLC. As the OCLC acquisitions subsystem has been tested and since it provides for ordering, tracking, claiming,

and accounting of books and monographs, it is logical to use this utility for these functions.

The steps we will perform in acquisition, selection, and cataloguing of serials, books, and monographs will include:

- receipt/sort
- check-in
- claim
- record update
- catalogue
- screen/abstract
- distribute/shelve

It is anticipated that all serials will receive one-day processing from receipt to shelving. All original cataloguing, check-in, claiming, and record update functions will be performed using OCLC. Descriptive cataloguing and abstracting will be interactive with the HP-3000/MINISIS system beginning early in January 1982. Until that time, the current system employed in the DIU's will be followed. All original cataloguing will be K-level using the OCLC cataloguing subsystem. Abstracting will be indicative or informative contingent upon general guidelines to be worked out with DIU during Task 1, Phase I. Other matters such as subject matter selection, specific journals, current interest emphasis, notation scheme, etc., will similarly be resolved with DIU early in Task 1, Phase I.

DIU can expect to be able to generate accessions and holdings lists from the system early in January 1982. Until that

time, should DIU require a special listing, the DIHF will be ready to assist in its collection and production.

The OCLC cataloguing subsystem will also be employed to input online 2,500 books. The system-generated cards will initially be manually filed. But within a year after contract award, the Acquisitions and Cataloguing Unit will conduct a feasibility study for the conversion of the manual catalogue to a book catalogue. The methods described above for screening and abstracting of serials will also be used for books and monographs. Unless otherwise directed, K-level full cataloguing will be used whenever possible. Cataloguers will also continue to use AACR2 rules and Library of Congress subject headings and classification schedules. OCLC records will be requested for any book ordered by DIU and found in the OCLC database. All OCLC printouts will be edited for accuracy.

For all commercial books and monographs not found in OCLC, DIHF cataloguers will perform original cataloguing, providing all necessary information to create an OCLC record. As defined in AACR2, bibliographic elements will include:

- title proper
- remaining title
- first parallel title
- first responsibility title
- edition
- publication location

- publisher
- publication or copyright date
- pagination
- statement of illustrations
- series
- bibliographic notes

Tasks related to acquisitions and cataloguing of serials, books, and monographs will be performed by Ms. Du Chez and Ms. Anderson.

Ms. Du Chez will work on acquisitions and serials control. Her primary responsibility will be to process acquisitions requests from DIU, perform journal scanning, interface with vendor services, and obtain vendor support when required. She will also be required to develop effective systems for ordering and tracking materials that must be obtained on a single order basis.

Ms. Anderson will perform all OCLC cataloguing tasks including the cataloguing of all commercial materials, non-copyrighted, and AID-generated books. She will also perform all original cataloguing for data entered into the OCLC system. Her duties will also include scanning all book materials and selecting items for inclusion in the A.I.D. database.

As there will be different peak work load periods for the two DIU library activities, both LTS and CSG personnel will work interchangeably to maintain an optimum workflow.

JoAnne DuChez

Ms. DuChez has considerable expertise in the field of library and information science. She currently provides library and information services for the National Health Standards and Quality Information Clearinghouse. Activities include bibliographic and technical services, systems design, and thesaurus and index construction.

Experience

1978-present, Capital Systems Group, Inc.
Information Specialist

- Bibliographic Services

  -- developing, researching, and updating annotated bibliographies, specifically in the medical, health care, and patient education areas;

  -- developing and maintaining clearinghouse publications, including Information Resources on Aging and Long Term Care; FYI: A NHSQIC Acronym List; and the National Health Standards and Quality Information Clearinghouse Annual Cumulative Bibliography;

  -- developing and researching for a glossary on the quality and assessment of health care; and

  -- performing manual and online computer literature searches.

- Systems Design

  -- redesigning and reorganizing the National Health Standards and Quality Information Clearinghouse data base; and

  -- designing, developing, and maintaining a computerized serial list of company and project journals and serials.

- Technical Information Services

  -- processing and cataloging documents for the National Health Standards and Quality Information Clearinghouse data base;

  -- providing bibliographic and quality control for the National Health Standards and Quality Information Clearinghouse data base;

  -- acquiring and maintaining the serial collection for CSG, the National Health Standards and Quality Information Clearinghouse, and the Arthritis Information Clearinghouse; and

-- acquiring all documents for CSG and various company projects.

- Thesaurus and Index Design

  -- revising the National Health Standards and Quality Information Clearinghouse Quality of Health Care Thesaurus; and

  -- developing and maintaining a computerized manual indexing tool for government documents, technical assistance documents, and transmittal letters pertinent to the PSRO program and the National Health Standards and Quality Information Clearinghouse.

- Document Delivery

  -- providing document delivery for InfoQuest, an information brokerage service operated by CSG.

1977, National Bureau of Standards
Interlibrary Loan Librarian

Activities included serial and monograph citation verification and bibliographies and literature searches involving interlibrary loan requests.

1972-1976, District Court of Maryland
Court Coordinator

Education

M.L.S., University of Maryland, 1977.

B.A. (Social Sciences/Sociology), Edinboro State College, PA, 1972.

Publications

Coauthor, Chest X-Ray Screening Practices, An Annotated Bibliography, U.S. Food and Drug Administration, Bureau of Radiological Health, March 1980.

Coauthor, Peer Review of Ancillary Services, An Annotated Bibliography, U.S. Health Standards and Quality Bureau, Division of Peer Review, HCFA, June 1979. 2nd Edition, Achieving Optimum Utilization of Ancillary Services, HCFA, October 1980. [HCFA/ HSQB Pub. No. 81-30044. Available from NTIS.]

Coauthor, Sourcebook of Consumer and Patient Education Materials on Medical Radiologic Procedures, FDA, 1980.

Iris W. Anderson

Ms. Anderson is experienced in supervising the abstracting, indexing, editing, and proofreading of engineering and applied science reports. She is also an experienced librarian, possessing reference, research, cataloging, and archive maintenance skills.

Experience

1979-present, Capital Systems Group, Inc.
Technical Information Specialist

- Document Analysis

  Review scientific and technical documents for standards of legibility, format, and copyright; abstract report literature and select keywords, descriptors, and identifiers for indexing; edit and proofread reports and monographs.

- Document Preparation

  Supervise the preparation of National Science Foundation reports in engineering and applied science for submission into the National Technical Information Service (NTIS); act as liaison with NTIS input department; obtain copyright clearance from publishers and principal investigators.

- Research Services

  Prepare brief reports and bibliographies by searching all types of reference sources; perform online searches of scientific and technical data bases; compile, edit, and design subject bibliographies for major conferences attended by the National Science Foundation.

- Conference Support Services

  Provide staffing support services by representing the National Science Foundation at scientific and technical meetings.

1976-1979, R.R. Bowker Company, New York, N.Y.
Assistant Librarian

- Library Services

  Responded to reference inquiries; selected and ordered books and periodicals for a special library of a major reference book publisher; performed original cataloging; acquired and worked on the preservation of archival copies of books and periodicals.

- Translation Services

  Provided occasional translation of book reviews from German into English.

1976, R.R. Bowker Company, New York, N.Y.
Assistant Editor

- Bibliographic Services

  Performed bibliographic and editorial work for the first edition of Books in Series in the United States, 1966-1975, a major reference book, using Bowker data base information, including MARC tapes.

1975, Ethnicity and Librarianship Institute, Queens College, New York, N.Y.

Administrative Assistant for a national government-funded program for professional librarians.

1973-1975, "Writing Skills Workshop," Queens College, New York, N.Y.
College Assistant

Provided tutorial services for remedial college students in writing and reading.

Education

M.L.S., Queens College, City University of New York, 1975

B.A. (English, minor in German), cum laude, Queens College, New York, 1974

Completed SDC/ORBIT online training workshop on data base searching, December 1979

Related Skills

Fluency in German. Reading knowledge of Spanish and French.

E. Thesaurus Development.

Question: Further elaborate on the development of the thesaurus. Resolve inconsistencies between the overview and the work plan. Explain the elements in the step called "intellectual processing." How will the UNESCO structure be maintained? How do you intend to limit the thesaurus to 3000-4000 terms? How do you plan to implement facet analysis? Comment on the availability of proposed staff and the use of consultants.

Response: The A.I.D. Thesaurus will be used as a controlled vocabulary for indexing and as a searching tool for the end user. Because of this anticipated use, it is of utmost importance for A.I.D. to have a thesaurus that serves both the indexer and searcher. Consequently, the thesaurus should be composed of a user-oriented vocabulary based on a sound logical structure.

Because new thesaurus development is time-consuming and labor intensive, it has been determined that A.I.D. should not try to develop a totally new thesaurus. A report prepared by CSG in March, 1981, recommended use of a shortcut approach to thesaurus building that involved use of A.I.D. word lists, codes, and subject headings as the core vocabulary and the UNESCO Thesaurus as the conceptual skeleton for a new thesaurus. The study also outlined a "thesaurus database approach" that would produce both the desired thesaurus and conversion tables for many A.I.D. term lists and codes that had been used in past indexing and classification activities. A.I.D. has indicated approval of the recommendations of the study and has expressed a preference for the thesaurus database approach to construct the new thesaurus (RFP p. 127).

Our approach to the thesaurus development task incorporates the recommendations of the thesaurus study. However, we would simplify the thesaurus data base approach that is advocated in the report to a considerable degree. We would use terms found in the DIS and RANDD Word Lists, Activity Identification Technical and Purpose Codes, and the Library of Congress Subject Headings as our candidate descriptors. These terms would be tied into a coherent indexing language based on the subject classification scheme, hierarchies, and overall conceptual structure of the UNESCO Thesaurus.

In addition, we would compare all terms selected for the A.I.D. thesaurus with the preferred terms of the OECD Macrothesaurus. Whenever possible, we would make the A.I.D. Thesaurus terms compatible with the Macrothesaurus terms. We have added this requirement to the thesaurus development process because of the projected use of MINISIS software. Because the U.N. and IDRC use MINISIS and the Macrothesaurus, we think the A.I.D. thesaurus should be compatible wherever possible.

Development of the A.I.D. thesaurus using the thesaurus database approach would be simplified through manipulation of the machine-readable database created for the merge-match evaluation phase of the CSG thesaurus study. As detailed in the study report, the merge-match database contains twelve internal A.I.D. word lists and the complete text of five other published thesauri. Because the database was designed for production of

a final thesaurus, the records for every term included in the data base contain complete thesaurus entries.

The steps detailed below form the thesaurus construction and development process.

Step 1--Development of Thesaurus Construction Software: The initial step in developing the thesaurus work plan would be to design INQUIRE programs to manage all of the files used in thesaurus construction and to transfer records from the working files to the thesaurus database file. A primary objective of the design effort would be to ensure that all records added to the thesaurus database retain information about the A.I.D. terms and their former place in one of the old A.I.D. thesauri, word lists, or vocabularies. Through this step, A.I.D. records would be maintained in a format that eventually allows for generation of conversion tables.

Step 2--Creation of the A.I.D Thesaurus Subset: Using an INQUIRE macro, A.I.D. terms contained in the DIS keyword and RANDD lists, Activity Identification Technical and Purpose Codes, and Library of Congress Subject Headings would be isolated from the merge-match database and put into a separate file. All A.I.D. terms will be merged and matched to create a single alphabetical listing of all A.I.D. terms. The listing would contain about 8,000 terms and would identify the source documents for each term. Through a short routine to eliminate plurals and a manual editing step to eliminate

simple duplicates, the A.I.D. terms file would be reduced again to approximately 7,000 terms.

Step 3--Creation of AID/UNESCO Terms File: The edited file of A.I.D. terms would be matched to the existing file of UNESCO Thesaurus terms. When an A.I.D. term matched a UNESCO term, all data for the A.I.D. term, including all source information for that term, would be transferred to the corresponding UNESCO term record. The UNESCO/AID term matches would be output as a separate file. This file would form the basis of the thesaurus database file. Based on the results found in the merge-match step of the CSG thesaurus study, it is anticipated that approximately 25 percent, or 1,750, A.I.D. terms would have a match in the UNESCO terms file.

Step 4--Creation of the UNESCO/AID Classified Terms File: The UNESCO/AID terms file described above would be sorted by the UNESCO classification notation included in each UNESCO record and would be output as a classified listing of UNESCO/AID terms.

Step 5--Creation of a File of Unmatched A.I.D Terms: All A.I.D. terms that did not match a term in the UNESCO file would be output as a separate file. The file would contain approximately 5,250 terms.

Step 6--Identification of Synonyms in Unmatched File for Terms in UNESCO/AID Terms File: This step begins the intellectual processing phase of the thesaurus development and would be essentially

a manual operation. The unmatched file would be examined to identify synonymous terms in both files. Other thesauri such as the SPINES Thesaurus, Macrothesaurus and VITA Thesaurus would serve as reference sources for this step.

Step 7-- Transfer of Synonyms to UNESCO/AID Terms File: If terms in the unmatched file were determined to be synonyms for terms in the UNESCO/AID terms file, the records for these terms would be clearly identified as synonyms, and all data for each of the synonyms records would be transferred to the corresponding record in the UNESCO/AID terms record file. We anticipate that elimination of synonyms would reduce the content of the unmatched file by 50 percent, or 2,625 terms. The UNESCO/AID terms file would not increase in number, because the added records would be used to produce lead-in vocabulary, not preferred terms.

Step 8--Lexicographic Analysis of Remaining Terms in Unmatched A.I.D. Terms File: All remaining 2,625 terms in the unmatched file would be analyzed to determine where they should be placed in the UNESCO/AID terms file. Semantic factoring would be used to decompose highly precombined terms into essential, if not elemental, concepts. (We would not expect to be able to reduce the highly precombined DIS terms into elemental concepts without losing meaning.) The term decomposition would increase the number of terms in the unmatched file initially. However, since many of the precombined descriptors would have some of the same essential concepts, we could

reduce the number of terms in the unmatched file by approximately 30 percent, or 875 terms.

Extreme care would be given to maintaining records of all terms in the unmatched file, including the breakdown for each term into essential concepts and the original A.I.D. source lists for each term. Records of all of these terms would be maintained in manual form and later entered into the thesaurus database to allow generation of conversion tables.

Step 9--Comparison of Essential Concepts List in Unmatched File to UNESCO/A.I.D. Terms File: Some of the terminology identified in the essential concepts list may be a match or a synonym for a term in the UNESCO/A.I.D. terms file. If a term is a match or synonym, it will be identified as such and transferred to the UNESCO/AID terms file.

Step 10--Integration of Unmatched A.I.D. Terms File and UNESCO/AID Terms File: At this point the unmatched A.I.D. terms file should consist of approximately 1,750 essential concepts that will require integration into the 1,750 terms that are already in the UNESCO/AID terms file.

Using the classified listing of the UNESCO/AID terms file, all remaining terms in the unmatched file would be assigned to a place in the UNESCO/AID terms hierarchies. About 500 additional terms beyond those in the unmatched file would also be added to complete the thesaurus, which would contain approximately 4,000 terms at this point. (A form of facet analysis may be used to

develop additional terms for the hierarchies. We do not intend to pursue a scheme of faceted classification.)

Additional data entry will be required to cover additional terms and to establish reciprocals for broader, narrower and related terms for the additions.

Step 11--Development of Lead-in Vocabulary: After the integration of the two files, it will be possible to finalize the first draft of the three structures and preferred terms. It will also be possible to develop a lead-in vocabulary from the data attached to synonyms.

Step 12--Development of Thesaurus Printouts, Conversion Tables, and On-line Tapes: A programmer would develop programs to generate the alphabetic, classified, and KWIC listings of the thesaurus, conversion tables, and convert these programs to the MINISIS software.

Step 13--Generation of Printout Listings of the A.I.D Thesaurus, and On-Line Thesaurus Tapes: This step would involve production of draft listings for each of the three parts of the thesaurus.

Step 14--Review and Editing: A.I.D. personnel and project staff would review the content of the thesaurus listings for accuracy, consistency, and thoroughness. Both the printed and on-line versions would be tested for retrieval performance.

Step 15--Revision of Draft Listings: The draft listings would be revised and corrected through on-line editing.

Step 16--Production of the Final Volume: Following revision of the drafts, a final tape would be delivered to AID for photocomposition of the completed thesaurus, and for installation on the on-line system.

Project Staff: Project staff will be primarily responsible for the development of the detailed work plan and schedule. Ms. Fake, who is designated as task leader for Thesaurus Development, has signed an employment contract with CSG that is contingent upon award of the DIHF contract to CDSI, Inc.

Consultants Dagobert Soergel and Charles T. Meadow will be asked to review the detailed work plan and will be involved in the intellectual processing phase of the project. Both will review the selection of preferred terms and hierarchies for the final thesaurus.

F. HP3000 and MINISIS Operation.

Question: Explain your approach to establishing and maintaining a computer facility using the HP3000 and the MINISIS software package. Explain your related experience in the design, establishment, and maintenance of computer facilities. Address conversion from INQUIRE. Address provision for growth.

Response: CDSI owns and operates computer equipment located in Bethesda in two buildings adjacent to the facility proposed to house the DIHF. Our Mohawk 2400 dual processors are located on the same floor of the building as the space in which we propose to install the DIHF HP3000 system. Our proprietary Electronic Typesetting System, which we propose to use for A.I.D. photocomposition activities, operates on the Mohawk. Our IBM 4341 dual processors are located next door.

HP3000 Training: The HP3000 system is extremely straightforward and user-friendly; its simplicity of operation can be further enhanced by judicious selection and development of user-defined commands. Because CDSI has operators trained on various minicomputer systems, we do not anticipate that significant time or cost will be required for operator training. These operators would be cross-trained on HP3000 equipment. Similarly, CDSI has a large staff of programmers conversant with many different dialects of COBOL. Programmers assigned to HP3000 software development required to interface with either CDSI's Electronic Typesetting Software or to produce special reports, will have no trouble learning to use COBOL II/3000 on the HP3000 system.

Proposed Configuration: The HP3000 configuration is graphically displayed in Exhibit 5, DIHF Hardware Configuration.

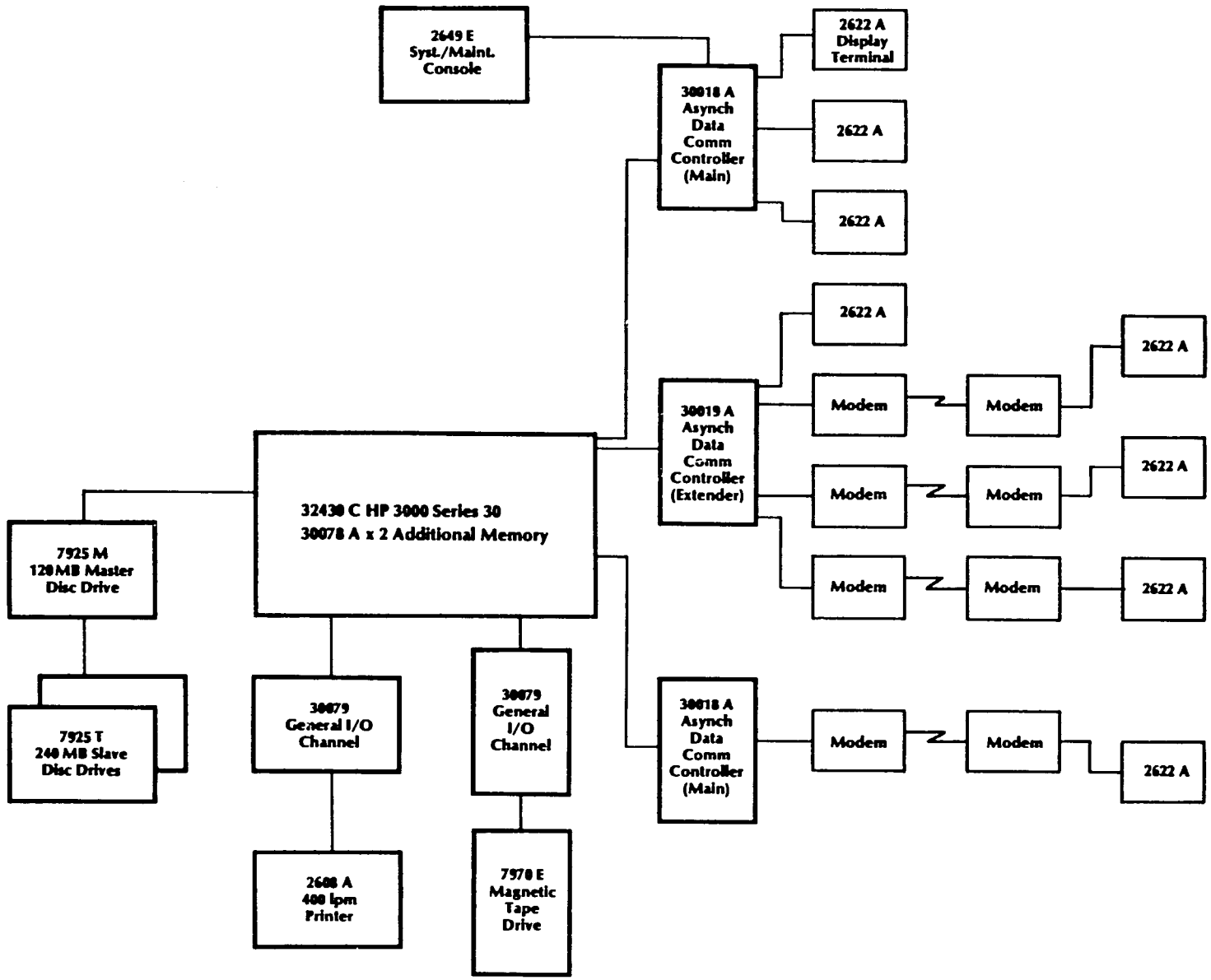


Exhibit 5 DIHF HARDWARE CONFIGURATION

Exhibit 6, List of Hardware and Software Components, provides further detail. The proposed Series 30 HP3000 system was configured based on our best estimates of existing database size after conversion from INQUIRE to MINISIS, due allowance for MINISIS overheads for inverted lists, the need to spread the database out to reduce disc arm contention and frequency of database "garbage collection," and reasonable database growth during the period of the contract. The proposed configuration can be comfortably expanded by an additional system printer in the future, and heavy peak print loads which might saturate the HP3000 print capacity can be accommodated by spooling to tape, then printing the tape(s) on one or more of our other computers. The proposed configuration will also allow for future growth in disc capacity, should that prove necessary, and can also grow to accommodate a considerable number of additional serial terminals, both CRT and hard copy, both on-site and remote.

While we anticipate that existing Datagraphix and Execuport terminals could interface to the HP3000 without any serious problems, we have configured HP2622A terminals for A.I.D. in order to take advantage of the additional capabilities that the HP terminals offer when operating in block mode. In particular, these terminals should considerably ease the interfacing of full screen editing capabilities with MINISIS. While all details are not yet fully resolved, we expect to be able to interface full screen editing capabilities by judicious use of user-defined commands involving redirection of output files from the MINISIS PRINT processor and input files to the MINISIS MODIFY processor.

Item	Hardware	Quantity	GSA Rate	Commercial Rate	Monthly Maintenance
32430C	HP-3000 Series 30 cpu, 256K memory	1	24,925.00	26,170	215
30078A	Additional 256K memory	2	5,000.00	5,250	18
30018A	Asynch, Data Comm Ctrlr, Main	2	3,200.00	3,360	18
30019A	Asynch, Data Comm Ctrlr, Extender	1	1,600.00	1,680	9
2649E	System/Maintenance Console	1	6,350.00	6,650	48
7925M	120MB Master Disc Drive	1	21,000.00	22,050	104
opt 102	Interface and Cable	1	1,000.00	1,050	4
7925T	240MB Slave Disc Drive	2	59,900.00	62,900	274
13356A	Spare Disc Packs	2	1,700.00	1,780	—
2608A	400 lpm Printer	1	9,900.00	10,400	99
opt 333	Interface and Cable	1	850.00	895	—
opt 110	Sound Cover	1	200.00	210	—
30079A	General I/O Channel	2	3,600.00	3,780	26
7970E	1600 bpi Magnetic Tape Drive	1	9,500.00	9,980	88
opt 426	Interface and Cable	1	3,700.00	3,885	29
2622A	Display Terminal	8	16,600.00	16,600	184
13222N	Terminal Cable	8	600.00	632	—
30062D	Hardware Extender Cable	4	260.00	272	—
30062B	Data Set Cable	4	260.00	272	—
			170,145.00	177,706	1,116
	Software				
32233A	COBOL II/3000 Compiler	1	3,000	3,800	
	Software Maintenance, per mo.				
32400T	FOS Cust. Support Service		300	375	
32233T	COBOL II/3000 Cust. Support Service		100	100	
			400	475	
	Training				
22801B	Programmer's Introduction	1		650	
22802B	System Management & Operation	1		800	
22807A	System Operator	1		480	
				1,930	
	Communications, per mo.				
	Modem	8		326.	
	Lines	4		37.	
				363	

Exhibit 6 LIST OF HARDWARE & SUPPORT SOFTWARE COMPONENTS

G. Phase III Approach.

Question: Further explain your approach in Phase III. Demonstrate your understanding of problems that may be encountered in setting up the system in the LDCs. Address the length and number of trips to be taken to LDCs.

Response: Various conditions enumerated in the RFP will affect CDSI's approach to achieving transfer of the development database to LDC institutions. These conditions, and a description of how CDSI proposes to deal with them, are addressed below.

A.I.D.'s decision as to which LDC institutions and A.I.D. missions will receive the database must be founded upon the most complete information possible. This information must comprise not only facts on existing equipment, the level of staff training, and the institutional support available, but also intangible concepts related to individual personalities and sociocultural conditions in a host country. The ability to perceive and assess these depends upon the sensitivity and experience of the contractor staff actually gathering data. CDSI can assure A.I.D. of the best knowledge base available by using professionals with in-depth experience in LDCs to aggregate and evaluate information on potential transfer sites.

CDSI will adapt much of the methodology it will use for this project from the VITA Action Plan to Establish an Appropriate Technology Network. Since A.I.D. sponsored development of this plan, and is thoroughly familiar with its provisions, CDSI will not repeat its content here. It should be noted, however, that a major difference between the proposed A.I.D. contract and the

activities described in the VITA plan is the objective of transferring a discrete prototype database, rather than promoting generalized information dissemination activities.

Surveying Candidate Institutions: As stated in our proposal, the contractor will use a questionnaire similar to that used in the VITA Action Plans to survey candidate institutions prior to recommending sites for the database and constructing a detailed plan for information resource transfer. Our staff will also gather data through fact-finding visits to two LDC institutions in each of the following geographic areas: Asia, West Africa, Latin America, and the Middle East. The topics which will be addressed are:

1. Availability of Minicomputer-based Hardware and Software in LDCs. Although we would be ready to assist candidate institutions in acquiring a minicomputer and associated software compatible with the proposed system, we intend to design most of its technical assistance efforts for institutions which already have, and are somewhat familiar with, the needed resources. Exceptions would be made only if no candidate institution in a particular area had such existing hardware and software.

Associated with the need to discover if a computer is on hand is the necessity of learning about technical factors (e.g., electrical specifications and availability, temperature) and personnel factors (existence of trained operators). Because LDCs may offer a less than ideal environment for computer operation, we will pay special attention during both the planning and actual transfer

phases to anticipating operational difficulties and designing strategies to deal with them.

2. Readiness of the LDC Institution to Accept Responsibility for Information Dissemination. This readiness implies not only willingness and existing ability to accept responsibility for housing the database and providing the necessary services, but also, if possible, the readiness to place institution resources at A.I.D.'s disposal in order to make the development database a true cooperative venture. Organizations able to do so would guarantee enthusiastic support for the project, and thereby contribute to achieving A.I.D.'s goals. CDSI would recommend such institutions as sites for the information resource. However, this criterion could probably not be applied universally to candidate institutions; A.I.D. may need to provide full support to certain LDC sites selected.

Evaluation of a potential site will also depend on CDSI's assessment of staff personalities, previous institutional patterns of providing services, geographical distribution, and some of the intangible factors mentioned above.

CDSI proposes to stimulate institution interest in the proposed plan by sending candidate institutions and missions various informational and promotional materials, beginning during Phase II when the system design is complete. These materials could include, but would not necessarily be limited to, a description of the database, its purpose and contents, and the associated hardware and software; details on operations stressing ease of use and

availability of support from A.I.D.; descriptions of the products which could be generated (e.g., microfiche, computer tapes, several publications); and enumeration of benefits to both the LDC institution and the user community. Chief among these would be the value of the new information resource in promoting networking among LDCs, without the need for extensive reliance on A.I.D. As the recent UNCSTD conference demonstrated, LDCs are eager for development information generated by other countries which have experienced their problems. The information service can be portrayed as a mechanism for increasing self-reliance in the Third World.

CDSI also proposes to send promotional materials to non-AID agencies or organizations with an interest in development. These include, for example, commercial attaches in various embassies, NTIS representatives, regional and international bodies such as SEAMEO and TROPMED, and university faculty and library staff.

Information materials could take the form of a newsletter, a series of brochures or fact sheets, and, eventually, an abbreviated users' manual based on the materials which we will develop for Task 2. In each issue, we will include a call for input from the recipients. Thus, institutions presenting special operating difficulties would be encouraged to advise the contractor of these problems, thereby both allowing us to plan for dealing with these issues and promoting a sense of partnership with A.I.D. among the LDC institutions. The publications would also stress the A.I.D. intent to provide training in using and supporting the system,

thereby stimulating interest among LDC facility staff in participating so that they could learn new and useful skills.

3. Extant and Potential User Groups as Part of Site Assessment. The existence of identifiable user groups will depend, to a large extent, on the previous service patterns of each LDC institution or mission, as well as on the social and political climate of the country. Obviously, an organization with a history of actively promoting information services in an environment which encouraged research would be most likely to offer an established audience for the development database. This would provide a clear advantage to A.I.D. by simplifying aspects of the transfer process and enhancing the likelihood of immediate database use. However, the information resource should also be transferred to institutions which, with some encouragement and modification of current operating procedures, could reach and assist untapped potential audiences. As part of the actual transfer process, we envision training institution and mission staff not only to use and support the information facility themselves, but also to train potential users in tapping the new resource.

Again, the advance materials mentioned under section 2 above could be used to stimulate interest among persons in LDCs who would be eager to acquire additional computer-related skills. The VITA Action Plan points out that LDCs recognize the need for national networking and a coordinating mechanism to promote it. With proper advance information, LDC users can be brought to see the A.I.D. database as an important step in this direction.

4. Cultural, Economic, and Social Factors Evaluation Prior to Transferring Database. The data collection instrument developed by CDSI, supplemented by discussions with A.I.D. staff and other country experts, will elicit information on these issues.

Environments in which free inquiry and research are encouraged and which have sufficient economic resources to engage in information gathering and analysis are those in which the A.I.D. database can be used to the best effect. Promotion of such activities in other frameworks, though laudable, could lead to repercussions for local missions and for A.I.D. in general.

Once information has been collected and reformatted, we will design an implementation plan covering the topics listed in the RFP and our proposal. The plan will be based heavily on the findings from the questionnaire, consultation with experts, our awareness of conditions in LDCs, and expertise gained in Phases I and II of the contract. LTS staff members with expertise in international assistance programs and Ms. Mary Jane Ruhl, who has extensive consulting experience in LDCs, will be major authors of the plan.

CDSI will meet with A.I.D. staff, after this plan has been submitted and reviewed, to discuss its findings and recommendations, especially those which connot be quantified. Following this meeting, A.I.D. will make its final selection of 20 LDC institutions and 5 A.I.D. missions to house the information facility. Further meetings will address actual transfer of the DIHF resources to the chosen sites.

Implementing the Transfer Program: As soon as the sites are chosen, we will initiate ongoing communication with each institution and mission to plan for database transfer, allocation of institutional support, preparation of training materials, and scheduling of site visits and training sessions. We will create detailed files for each site, addressing individual concerns and problems posed by the particular institution or location. While we will seek to involve the entire complement of appropriate staff in the host organization, we will also identify one key contact person per site through whom arrangements will be made.

Clearly, it is impossible to predict the precise conditions which the contractor will encounter in the course of supervising information transfer. However, our general plans for delivering technical assistance to the LDC institutions and A.I.D. missions selected will include the following general activities.

1. Preparing Special Documentation and Users Manuals. As outlined above, we will develop and disseminate descriptive materials to the LDCs prior to Phase III. By the time Task 2 is implemented, we will have produced a general user's manual in looseleaf form to permit personalization for each institution or mission. The text will be stored on the computer to facilitate updating.

The manual will use simple, nontechnical terminology, and, although it will be written in English, we will ensure that is translated into the languages of the target LDCs as well. We propose that this task be carried out by the chosen institutions

or by persons they select. This, in turn, will provide an additional opportunity for each organization to identify, and draw A.I.D. attention to, specific conditions which should be addressed in actual training sessions.

2. Establishing a Prototype System. Based on the data collected in Task 1, we will establish an operational prototype of the minicomputer-based system to be transferred to the LDCs. This system will have all the capabilities of the central A.I.D. facility, scaled to the skill levels and needs of LDC institutions. CDSI will implement the system on the HP3000 minicomputer at the DIHF and will be responsible for acquiring and integrating all necessary software and supporting materials.

We will use the prototype to test and demonstrate the procedures we will apply in the field and to train A.I.D. staff, both those who would be sent to missions chosen as information dissemination sites and those who will work with the central facility. Whenever possible, we will approximate actual operating conditions which might be encountered in LDCs, such as power fluctuations, heavy demand for certain products over others, and linguistic or cultural factors.

3. Providing On-site Consultation and Training. We believe that 4,160 hours for travel to LDCs during Task 2 will be insufficient, since this figure implies that each trip will only last 100 hours (approximately four days). We suggest a minimum of 4,800 hours be allotted under Task 2, and that the trips be planned as follows:

- Initial trip of approximately one week to supervise installation of the system, ensure initial operability, and train institution and/or A.I.D. mission personnel;
- Follow-up trip of approximately three days, scheduled to give LDCs a chance to test the system in operation, for trouble shooting, additional training, and discussion of continuing support.

Training will be provided by DIHF project staff with in-depth experience in operating the system, as well as sensitivity to LDC conditions. Again, we cannot predict the exact content or nature of the on-site assistance to be provided to each institution. It is anticipated that the major portion of the first trip will be devoted to formal training sessions, supplemented by hands-on demonstrations and ad-hoc discussion. We will ensure that the system is used immediately and continuously, so that any mechanical or other problems can manifest themselves and be addressed by us. The follow-up trip will be devoted entirely to solving problems encountered by each organization, and to introducing any system improvements and innovations.

4. Reporting on the Information Transfer Program. When all site visits are completed, we will report to A.I.D. on our findings and perceptions regarding the information transfer program, including content, methodology, and possible improvements. The report will include a general overview in these three categories, findings and recommendations related to eacch individual LDC institution or A.I.D. mission, and appendices containing data drawn from the initial survey (Phase III, Task 1) and the two site visits at each facility. The document will be designed to assist A.I.D. in

expanding its information transfer to other countries, as well as to upgrade the existing facilities created under this contract.

Staff Capabilites in International Assistance Programs: LTS has been involved in international assistance programs for the past five years. These international assistance programs always involve U.S. assistance to LDCs funded by A.I.D. LTS personnel deliver health-related technical advisory services to LDCs and develop methodologies and guidelines for providing these services. The actual products delivered consist of health sector assessments, health sector background papers, assessment methodology manuals, health planning project papers, staff papers, and performance of services and production of guidelines relating to the health/development interaction. Most of the tasks are performed in accordance with the Office of International Health Policy for assistance as set forth by A.I.D.

Within this interagency structure, there are several goals and objectives that are accomplished by LTS.

- Improvement of LDC institutional capability in health planning by provision of a learning by doing opportunity;
- A more factual basis for programming LDC and A.I.D. investments within the health sector;
- A basis for evaluation of LDC and A.I.D. investments within the health sector.

ROBERT C. EMREY

DUCATION

University of California, Irvine, Graduate School of Administration, Ph.D. Candidate
University of California, Berkeley, School of Public Health, M.P.H., 1967
University of California, Los Angeles, Graduate School of Management, M.B.A., 1966
Occidental College, Los Angeles, Economics, A.B., 1964

XPERIENCE

Office of International Health, U.S. Public Health Service, Rockville, Maryland -- Public Health Advisor.

Public Policy Research Organization, University of California, Irvine, California -- Public Policy Research Specialist.

Crow-Northern Cheyenne Indian Health Service Unit, U.S. Public Health Service, Crow Agency, Montana — Service Unit and Hospital Director.

Indian Health Service, U.S. Public Health Service, Silver Spring, Maryland -- Assistant to Hospital Services Officer.

RECENT CONSULTATIVE ACTIVITIES

Bureau for Latin America, U.S. Agency for International Development, Washington, 1974.

Division of Strengthening of Health Services, World Health Organization, Geneva, 1973.

Municipal Systems Research Project, Claremont Graduate School of The Claremont Colleges, Claremont, California, 1971-1972.

Orange County Health Planning Council, Santa Ana, California, 1971-1972.

Urban Information Systems Research Project, Long Island University, Greenvale, New York, 1971.

Southern California Comprehensive Health Planning Council, Los Angeles, 1971.

RECENT TEACHING ACTIVITIES

"Health Services Administration," Graduate School of Administration, University of California, Irvine, 1975.

"Urban Planning: Theory and Practice," University Extension, University of California, Irvine, 1972.

"Information Systems in Management," Graduate School of Administration, University of California, Irvine, 1971.

AWARDS AND FELLOWSHIPS

United States National Center for Health Services Research and Development Predoctoral Fellowship, 1973-1974.

University of California Fellowship, 1971-1972.

United States Public Health Service Traineeship, 1966-1967.

PUBLICATIONS

Fagin, H., and R. Emrey. Information for the future: The West Side San Joaquin Valley Project. Los Angeles: University of California Water Resources Center, 1970.

Kraemer, K. L., R. Emrey, R. D. Hackathorn, L. D. Hackathorn, and J. Connors. Systems analysis in the USAC cities. Washington: U.S. Government Printing Office, 1972. (NTIS No. PB-208 505)

Kraemer, K. L., H. C. Lucas, R. D. Hackathorn, L. D. Hackathorn, and R. Emrey. Computer utilization in local government. Irvine, California: Urban Information Systems Research Group, University of California Public Policy Research Organization, 1974. (NTIS No. PB-245 688/7)

Bumpus, E. J., J. A. Daly, R. Emrey, B. J. Holland, D. W. MacCorquodale, P. J. H. Marnane, M. M. Marx, and C. P. Roberts. Health sector assessment for the Dominican Republic. Santo Domingo: United States Agency for International Development, 1975.

Emrey, R., K. R. Farr, and J. E. Sarn (Eds.). Health sector assessment for Nicaragua. Managua: United States Agency for International Development, 1976.

PROFESSIONAL AFFILIATIONS

American Public Health Association
Operations Reseach Society of America
The Institute of Management Sciences

STEVEN J. LUCAS

EDUCATION

University of Michigan School of Public Health, M.P.H., 1976
Michigan State University, B.S., Geography, 1973

EXPERIENCE

As full time consultant to Logical Technical Services Corporation on the Office of International Health project, assignments have included writing analysis of relevant documents for the Comparative Study of Health Manpower Issues in Latin America; editing and rewriting sections of the El Salvador Health Sector Analysis and the Virgin Islands Syncrisis; Caribbean Commonwealth Health Sector Study; co-authorship of the Iraq Health Sector Background Paper; technical assistance to USAID/Haiti in preparation of the Health and population sections of the DAP; participating in on-site USAID survey of the Caribbean Commonwealth health sector; on-site technical assistance to USAID/ Zaire in the nutrition and rural health delivery system programs.

Research Assistant, University of Michigan - University of Ibadan Joint Migration Project, Kano, Nigeria. Assisted in sample selection and mapping of survey areas; establishment of liaisons with local and national officials; recruitment, training and supervision of sixty Nigerian survey personnel.

Assistant Instructor, Michigan State University, East Lansing. Development of curriculum and teaching of first and second year Hausa students.

Physical Education Teacher, Lebanese Community School, Lagos, Nigeria. Developed and coordinated physical education curricula for this multi-national school; taught physical education.

Undergraduate Assistant, Michigan State University, East Lansing. Assisted in teaching first and second year Hausa students.

Language Teacher and Group Co-Leader for Area Studies of West Africa, Canadian University Service Overseas, London, Ontario. Taught intensive Hausa to volunteers and werved as cross-cultural expert for the West African program.

Research Assistant, Michigan State University Linguistic Study, Jos, Nigeria. Recruited and interviewed linguistic informants of the Chadic language group. Transcribed linguistic and cultural data for research project.

Language Teacher, Peace Corps Nigeria and United States Orientation. Taught intensive refresher and beginning Hausa courses; assisted in counseling for cross-cultural problems; arranged a live-in program for volunteers with Nigerian families.

Administrative Assistant (Volunteer), Leproserie du Maradi, Maradi, Niger. Assisted in routine administration of leprosarium; supervised and coordinated work crews; coordinated job training program for leprosy patients and assisted in planning for rehabilitation therapy program.

PUBLICATIONS

Basic Hausa (unpublished); for private use of Canadian University service overseas.

with Weisman, J., Iraq Health Sector Background Paper, Division of Program Analysis, Office of International Health, USDHEW, October, 1977.

Health Status and Population section of Haiti DAP, USAID/ Haiti, March, 1977.

ROBERT L. ROBERTSON, JR.

EDUCATION

B.S. (Industrial and Labor Relations) 1953, Cornell University
M.S. (Economics) 1956, University of Wisconsin
Ph.D (Economics) 1960, University of Wisconsin

EXPERIENCE

Graduate Teaching Assistant for 4 years and Ford Foundation Predoctoral Fellow for 1 year at University of Wisconsin.

Assistant Professor of Economics, College of Business Administration at the University of Cincinnati.

Assistant Professor, Associate Professor, Professor of Economics at the Mount Holyoke College.

Senior Associate, Harvard Center for Community Health and Medical Care and Consultant to Center at Harvard University.

Technical Assistance Project to "PRIMOPS" coordinated by Tulane University School of Public Health and Tropical Medicine. Consultant on cost analysis to project, involving study of innovative health delivery program in Cali, Colombia.

Study of Impact of Unemployment on Health Insurance Coverage, Battelle Health Care Study Center. Visiting Scientist of Center, with share of responsibility for collecting and analyzing data.

Study of Alternative Health Service Financing Mechanisms Used in Latin America. Contractor (in association with Dieter K. Zschock to US DHEW.

Mr. Robertson has done some consultant work to projects on delivery of mental health and surgical services, Research in Comprehensive Health Planning program, Universidad del Valle, Cali, Colombia.

Advisory committee for proposed study of the financing of the Colombian health sector, planned by special studies institute of the national Ministry of Health (INPES), Bogota.

Consultant to Program de Investigacion by Desarrollo de Sistemas de Salud (World Health Organization), Cali.

Mr. Robertson has also done consulting work in the U.S. for Kaiser Foundation Hospital, Portland, Oregon, Model Cities Health Programs, Boston, Springfield, Holyoke, Mass, Albany Medical College New York, OEO neighborhood health centers, Providence, R.I. Belchertown State Hospital, Mass, and Mohawk Vahley, Mass., Health Center.

CHARLES H. TELLER

EDUCATION

Ph.D., Sociology/International Population, Cornell University, Ithaca, N.Y., 1972. (Medical Sociology and Comprehensive Health Planning participant).
Clark University, Worcester, Mass., Geography, 1969 (National Resources Development)
History, Brandeis University, Waltham, Massachusetts, 1963
Courses in Community Health, Peace Corps Training, University of Washington, Seattle, Washington, 1965
Courses in Public Health, Nutrition and Nutrition Planning, INCAP, Guatemala, C.A., 1976-77

EXPERIENCE

Pan American Health Organization/World Health Organization (PAHO/WHO).

1981. PAHO Headquarters, Washington, D.C., Research and evaluation consultant in maternal/child health and health services research.

1974-1980. Nutrition Institute of Central America and Panama-(INCAP); Social scientist and demographer.

Developed Population and Demography Program.

Regional Advisor in Population and Nutrition.

Director of various field investigations in population, nutrition and health area.

Technical advisor in nutrition planning, food and nutrition surveillance, and information systems.

Team teacher in M.P.H. courses in nutrition planning and public health nutrition.

1972-1974. Assistant Professor of Sociology, Associate Director of Population Research Center, Associate of Latin American Institute and Mexican-American Studies Center, University of Texas, Austin; Adjunct Professor, Health Sciences Center, University of Texas, San Antonio.

1973, 1980. Short-term consultant for AID missions in population and health sector projects, Panama and Honduras.

1979. WHO Expert Consultant, Workshop on Integration of Nutrition and Family Planning into PHC, Manila, Philippines.

1965-1967. Peace Corps Volunteer, Public Health/Community Development, Bolivia.

FELLOWSHIPS

NICHHD Fellowship, International Population Program, Cornell University, 1967-1971
Dissertation Completion Grant, Cornell University, 1971
Summer Research Fellowship, Latin American Studies Center, 1973

RESEARCH GRANTS

Conference on the Demographic Study of the Mexican American Population, Center for Population Research, National Institute of Health, 1973, (with Harley Browning)

Socio-Demographic and Biological Determinants of Natural Fertility in Guatemalan Villages, Population Council, 1975-1976, (with Robert E. Klein, Hernan Delgado and John Bongaarts)

Seasonal Migration, Health and Nutrition Status in Indian Guatemalan Communities, Ford-Rockefeller Foundations, 1979 (with Hernan Delgado and Robert Klein)

Population and Nutrition: Their Integration in Food and Nutrition Planning and Health Programs in Developing Countries, UNFPA, 1979-1980.

Integración de Actividades de Nutrición y Población al Programa Materno-Infantil y Extensión de Cobertura, UNFPA, 1980-81 (with J.A. Solis and Government of Honduras).

CONSULTING WORK

Planning of a 5-8 year study of demographic and health change in rural Panama. University of Texas, School of Public Health and the International Division of the American Public Health Association, Spring, 1973.

Community Mental Health Study, Winter Garden Area, Texas, DHEW, Fall, 1972- Spring, 1973.

Community Health and Ethnic Differentiation Studies, South Texas, Urban Research Group, Spring, 1973 - Fall, 1973.

Committee Member and Technical Consultant, Health Status Indicators, Comprehensive Health Planning, Capital Area Planning Council, Austin, Texas, Fall, 1973 - Spring, 1974.

Design and Analysis of Infant Mortality Study along the U.S.A. - Mexican border, Pediatric Clinic, Eagle Pass, Spring, 1974.

Research Instruments on Birth Interval Study in Guatemala, Rand Corporation, Santa Monica, California, Spring, 1974.

Development of a Center for the Study of Population, Environment and Natural Resources, Universidad del Valle, Guatemala, 1975 - 1976.

The Honduran Demographic Situation: Structure, Trends and Projections, AID, Tegucigalpa, Honduras, 1980.

Assessment of the Nutrition Situation in Honduras and the Role of Health Sector on Its Solution, AID, Tegucigalpa, Honduras, 1980.

Family in Economic Development Project, Rand Corporation, Santa Monica California, Fall 1980, Spring, 1981.

MEMBERSHIP

International Union for Scientific Study of Population (IUSSP)

Population Association of America (PAA)

Asociación Centroamericana de Sociología (ACAS)

Sociedad Latinoamericana de Nutrición (SLAN)

Association of Borderlands Scholars (ABS)

American Public Health Association (APHA)

PUBLICATIONS

Teller, Ch., M. Culagovski and J. Aranda-Pastor. (Eds.). Interrelación Desnutrición, Población y Desarrollo Social y Económico. INCAP, Guatemala, 1980.

Teller, Ch. y Erwin Díaz. Catálogo de Datos Demográficos para la Planificación Nutricional de Centro América y Panamá. INCAP, Guatemala, Jan. 1980.

Instituto de Nutrición de Centro América y Panamá/Oficina Sanitaria Panamericana (INCAP/OPS). Vigilancia Epidemiológica de la Desnutrición. INCAP, Guatemala, 1978 (Group effort).

Teller, C., L. Estrada, J. Hernández and D. Alvirez. ¿Cuántos Somos?: A Demographic Study of the Mexican American Population. Center for Mexican American Studies, The University of Texas at Austin, Austin, 1977.

Teller, C. Internal Migration, Socio-Economic Status and Health: Access to Medical Care in a Honduras City, Latin American Studies Program Monograph Series, Cornell University, Ithaca, New York, September, 1972.

Articles and Chapters

Teller, Ch., M. Culagovski, J. del Canto, J. Aranda-Pastor. "Desnutrición, Población y Desarrollo Social y Económico: Hacia un Marco de Referencia," in Teller, Culagovski y Aranda-Pastor (Eds.). Interrelación Desnutrición, Población y Desarrollo Social y Económico, INCAP, Guatemala, 1980.

Teller, Ch., y E. Díaz. "El Catálogo de Datos Demográficos para la Planificación-Alimentaria-Nutricional en Centro América y Panamá," in Teller, Culagovski y Aranda-Pastor (Eds.), Interrelación Desnutrición, Población y Desarrollo Social y Económico, INCAP, Guatemala, 1980.

Teller, Ch., M. Culagovski, J. del Canto, L. Sáenz y J. Aranda-Pastor. "La Dinámica Demográfica en la Problemática Alimentaria-Nutricional: La Búsqueda de Estrategias Efectivas". Forthcoming in Archivos Latinoamericanos de Nutrición.

Sáenz, L., Ch. Teller, J. del Canto and J. Aranda-Pastor. "La Incorporación del Componente Demográfico en la Planificación Alimentaria-Nutricional. Una Introducción al Tema", in Teller, Culagovski, Aranda-Pastor (Eds.) Interrelación Desnutrición, Población y Desarrollo Social y Económico, INCAP, 1980.

Aranda-Pastor, J., M.T. Menchú, R. Palma, C. Teller, D. Salcedo and J.P. Kevany. "Food and Nutrition Surveillance Systems: The Central American Experience". Forthcoming in the Bol. Of. Sanit. Panam.

Teller, C. y J. del Canto. "Las Consecuencias Nutricionales del Cambio Demográfico en Centroamérica y Panamá". Revista Centroamericana de Economía. Número Especial: Economía y Población. M. Torres (Ed.), 1(2-3):65-98 (1980).

Teller, C., M. Flores, J. del Canto, L. Sáenz y J. Aranda-Pastor. "La Determinación de las Poblaciones Objetivo: Una Metodología Socio-Ecológica Práctica para la Planificación Alimentaria-Nutricional." (Submitted for Publication).

Del Canto, J., Ch. Teller, D. Salcedo y J. Aranda-Pastor. "Componentes de los Problemas Socioeconómicos y Nutricionales y Crecimiento Demográfico Centroamericano". Forthcoming in La Interacción entre Agricultura, Ciencia y Tecnología de Alimentos y Nutrición, R. Bressani y E. Braham (Eds.).

Teller, C. "Comments on Socioeconomic Determinants of Mortality in Latin America", in Proceedings of the Meeting on Socioeconomic Determinants and Consequences of Mortality, Geneva, WHO, 1980, 166-168.

Bermúdez, A., Ch. Teller y V. Valverde. "Análisis de Algunos Factores Relacionados con el Bajo Peso al Nacer". Boletín Informativo del Sistema de Información en Nutrición. (Costa Rica), No.7, Año 1, 1980, 4-11.

Beghin, I., J. del Canto and C. Teller. "Malnutrition National Development and Planning", Bulletin Pan American Health Organization, 13(3):285-292 (1979). Also appearing in Spanish in the Bol. Of. Sanit. Panam., _____

Teller, C., R. Sibrián, C. Talavera, V. Bent, J. del Canto and L. Sáenz. "Population and Nutrition: Implications of Sociodemographic Dynamics for National Food and Nutrition Policy", Ecology of Food and Nutrition 8:95-109(1979).

Teller, C., I. Beghin and J. del Canto. "Population and Nutrition Planning: The Usefulness of the Demographic Discipline for Nutrition Policy in Latin America. Bull. Pan. Am. Health Organ., 13(1):21-32(1979). Forthcoming in Spanish in the Bol. Of. Sanit. Panam.

Urrutia, J.J., C. Teller and others. "Case Study: Guatemala". In J. Austin (Ed.), Global Malnutrition and Cereal Fortification, Ballinger Publishing Co., Cambridge, Mass., 1979, 131-174.

Teller, C. "Physical Health Status and Health Care Utilization in the Texas Borderlands", in Ross (Ed.): Views Across the Border: The United States and Mexico, Albuquerque, The University of New Mexico Press, 18 1978, 256-279.

Teller, C., and R. Rodríguez. "Annotated Bibliography of Mexican American Demographic Research with Commentary", in Teller et.al. (Eds.) ¿Cuántos Somos? (1977), 79-97.

Estrada, L., and C. Teller. "Community-Oriented Demography: Toward a Micro-Structural Approach to the Study of Ethnic Populations", in Teller et.al. (Eds.), ¿Cuántos Somos? (1977), 3-9.

Valverde, V. "Relationship Between Family Land Availability and Nutritional Status", Valverde, V., R. Martorell, V. Mejía-Pivaral, H. Delgado, A. Lechtig, C. Teller and R. Klein. Ecology of Food and Nutrition 6:1-7(1977). Reprinted as "Relación entre TEnecia y Acceso a la Tierra y Estado Nutricional de Niños Pequeños", Revista Centroamericana de Ciencias de la Salud, 3(7), 149-155(1977).

Teller, C., W. Butz, C. Yarbrough, A. Lechtig, J.P. Habicht, H. Delgado and R. Martorell. "Effects of Declines in Infant and Child Mortality on Fertility and Birth Spacing: Preliminary Results from Retrospective and Prospective Data in Four Guatemalan Villages". In: Seminar on Infant Mortality in Relation to the Level of Fertility, CICRED, Paris, 1975, 338-342.

Teller, C. and S. Clyburn, "Trends and Ethnic Differentials in Infant Mortality in Texas", Texas Business Review, 48:10 (October, 1974).

Teller, C. "Health Care on the Rio Bravo". Modern Medicine, (April 29, 1974).

As Assessment of Fertility and an Evaluation of Health and Family Planning Programs in Las Crucitas, Tegucigalpa-Comayaguela, Honduras. (By J.M. Stycos and P. Marden; part of this report is based on my research). International Population Program, Cornell University, July 1969. Reprinted in J. Mayone Stycos, Ed., Clinics Contraception and Communication, New York, Appleton-Century-Crofts (1973).

Teller, C. "Access to Medical Care of Migrants in a Honduran City". Journal of Health and Social Behavior, 14, 3(September, 1973). Reprinted as "Acceso a la Atención Médica de los Migrantes en una Ciudad Hondureña", Revista Centroamericana de Ciencias de la Salud, 2(3):163-179, (January-April, 1976).

Presented Papers (unpublished)

"La Salud y la Comunidad". Paper presented at the Conference on Population, Health and Community, Tegucigalpa, Honduras (January, 1969).

"Medical Care in Urban Barrios of Honduras: The Appropriateness of the U.S. Model". Paper presented at the Conference on Comparative Health Care Systems, Cornell University (June, 1972).

"Access to Medical Care of Migrants in an Industrializing Honduran City". Paper presented at the Annual Meeting of the Southwestern Sociological Association, San Antonio (April, 1972).

"Nativity, Health Care and Disease: A Study of Diphtheritic Mexican American Families in San Antonio". Paper presented at the Annual Meeting of the South-western Sociological Association, Dallas (March, 1973). With Sue K. Hoppe.

"A Sociological Study of Diphtheria among Mexican Americans". Paper presented at the Annual Meeting of the American Public Health Association, San Francisco, (November, 1973). With Sue K. Hoppe.

"Técnicas de Recolección de Datos Socioeconómicos: Consideraciones sobre la Validez y la Confiabilidad de Datos Especialmente Difíciles de Obtener en un Area Rural de Guatemala". Paper presented at the Conferencia sobre Recolección de Datos Socio-Económicos en Areas Rurales de Países en Desarrollo, México, D.F. (November, 1974). With Victor Mejía-Pivaral and Marta Amanda Barrera.

"Patrones de Emigración y su Impacto sobre Estado Nutricional. Un Análisis Preliminar de Familias en Cuatro Comunidades Rurales de Guatemala". Paper presented a the Seminar on Estructura Social Rural y Análisis Regional en Centro América y Panamá . Asociación Centroamericana de Sociología, La Catalina, Heredia, Costa Rica (September, 1975). With others.

"Developing Governmental Capacity to Generate, Interpret and Utilize Socio-demographic Information in National Nutrition Planning: A New Priority for Research and Action in the Nutrition Area". Paper presented a the Third International Conference of the World Population Society "Priorities for the Fulfillment of the World Population Plan of Action". Washington, D.C. (December, 1976). With Ivan Beghin, Juan del Canto and Hernan Delgado.

"Urbanization, Breastfeeding and Birth Spacing in Guatemala: Implications for Nutrition Policy". Paper presented at the Annual Meetings of the Population Association of America, St. Louis, Missouri (April, 1977). With William Butz J. del Pinal, H. Delgado and Robert Klein.

"La Demografía de la Desnutrición en Guatemala". Paper presented at the Seminario Nacional de Demografía, Desarrollo y Medio Ambiente, Guatemala (June, 1978). With Erwin Díaz, Ricardo Sibrián, Iván García and Juan Lee.

"Integration of Nutrition Activities into Primary Health Care". Paper presented at the XI International Nutrition Congress, Rio de Janeiro, Brazil (August, 1978). With H. Amigo, S. Franzetti, R. Sibrián, O. Molina, and J. Aranda-Pastor.

"Agricultural Planning and Nutrition Planning". Paper presented at the XI International Nutrition Congress, Rio de Janeiro, Brazil (August, 1978). With J. del Canto, C. Talavera, L. Sáenz, V. W. Bent and J. Aranda-Pastor.

"Demographic Factors and their Food and Nutrition Policy Relevance: The Central American Situation: Paper presented at the Annual Meetings of the Population Association of America (April, 1978) Atlanta, Georgia, with Vernon W. Bent.

"Recent National and Local Trends in Child Mortality and Malnutrition and their Interrelationship in Central America and Panama". Paper presented at the Annual Meetings of the Population Association of America, Philadelphia, Pa. (April, 1979). With Erwin Díaz, Hernan Delgado, Lenín Sáenz and J. Aranda-Pastor.

"Operationalization of Food and Nutrition Surveillance Systems: Selected Methodological Advances and Problems". Paper presented at the X International Nutrition Congress, Rio de Janeiro, Brazil (August, 1978), with J. Aranda-Pastor, M.T. Menchú, R. Sibrián and D. Salcedo.

RONALD PARLATO

EDUCATION

The Loomis School, Windsor, Connecticut, 1960
A.B., Yale University, 1964
M.P.A., Graduate School of Public and International Affairs, The University of Pittsburgh, 1965

EXPERIENCE

USAID, Tunisia. Nutrition Communications Expert to work with Institute of Child Health, Tunis, to develop national nutrition education/communications/training program.

USAID, Senegal. Nutrition Planner to administer/teach nutrition planning workshop for mid-level Senegalese professionals in health, agriculture, rural development, etc.

USAID, Cameroon. Nutrition Planner/Communications Expert to work with Ministry of Health to develop national nutrition education/communications program and nutrition regional workshops.

UNFPA, Tunisia. Population/Health Communications Expert, Basic Needs Mission.

UNFPA, The Comoro Islands. Population/Health Communications/ Education Expert, Basic Needs Mission.

UNFPA, Morocco. Population/Health Communications Expert, Programming Mission.

World Bank, Senegal, The Gambia. Nutrition Planner, Project development.

UNFPA, Tunisia. Population/Health Communications Expert, Programming Mission.

World Bank, Senegal. Nutrition Planner/Communications Expert to assist Government in preparation of multi-sectorial Food and Nutrition Project.

World Bank, The Gambia. Nutrition Planner to develop nutrition strategies/programs within a Bank-financed national rural development project.

UNFPA, Upper Volta. Population/Health Communications Expert, Basic Needs Assessment Mission.

USAID, Haiti. Nutrition/Health Communications Expert and co-Chief of Mission, Basic Needs Assessment.

Academy for Educational Development, Washington. Communications Specialist to develop a world-wide nutrition education support service.

UNFPA, Mauritania, Madagascar, Burundi. Population/Health Communications Expert, Basic Needs Assessment Mission.

American Public Health Association, Washington. Communications consultant to plan Latin American Health mass communications campaign (with Children's Television Workshop).

New TransCentury Foundation, Colombia. Communications Advisor to the Ministry of Planning in the development of a national food and nutrition project (PAN).

New TransCentury Foundation, Peru. Nutrition Planner to evaluate the current Government Child Nutrition Programs.

Planning Assistance, Inc., Lesotho. Nutrition Planner to evaluate the National Food and Nutrition Program of Lesotho.

USAID, Washington. Communications Specialist to research the use and potential of visual print media (fotonovelas, comic books, etc.) for semi-literate audiences.

UNESCO, Thailand. Educational Media Expert to design national radio/television educational network.

FAO, Korea. Nutrition Planner to evaluate and re-program national Applied Nutrition Program.

WHO/PAHO, Central America. Nutrition Education Specialist to design regional basic needs study.

Academy for Educational Development, New York. Media Research Analyst to develop project for visual communication with illiterates.

Richard K. Manoff, Inc., New York. Nutrition communications consultant to assist design of Ecuador mass media campaign.

CARE, India. Director of AID-financed Nutrition Mass Communications Project designed to test the effectiveness of a mixed media campaign in rural areas.

CARE, India. Nutrition Program Administrator (Maharashtra).

AREAS OF SPECIALIZATION

National Planning/Program Design: Health and Nutrition Programs in the Gambia, Senegal, Colombia, others as above.

Project/Program Management: Director of 3-year, 250,000 population mass commuications project including media production, field investigation, and evaluation (INDIA); Administrator of 200,000 beneficiary child nutrition program (INDIA).

Program Evaluation: Assessment of national nutrition programs (KOREA, LESOTHO, PERU); program impact studies (INDIA, COLOMBIA); and formative evaluation of communications programs (HAITI, SENEGAL).

Research: Director of 2500-interview sample survey of nutrition knowledge, attitudes, and practices (KAP) in India; study of visual perceptions of illiterates; study of the use of visual print media for communications with semi-literates.

Basic Needs Assessment: For population/health - HAITI, MADAGASCAR, BURUNDI, UPPER VOLTA, MAURITANIA; for nutrition CENTRAL AMERICA.

Training: Determination of, programming for training needs in population, health, nutrition programs.

Documentation/Editing: Rapporteur for UNFPA Basic Needs Mission to Haiti - responsible for final preparation of Mission document.

Project Preparation: Writing of four major health/nutrition competitive bid submissions in response to AID RFP's in past two years.

PUBLICATIONS

Food Attitudes in Andhra Pradesh and Uttar Pradesh: A Report of Findings, CARE-India, New Delhi, 1973.

Planning for Nutrition Education: A Program Manual, CARE-India, New Delhi, 1973.

Breaking the Communications Barrier, CARE-India, New Delhi, 1972.

"Private Sector Involvement in Nutrition", Eastern Economist, New Delhi, October 1971.

CARE in India: 25 Years, editor, Commerce, Bombay, June 1971.

The Use of Graphic Print Media in Development Support Communications: A Study of Fotonovelas and Comic Books, with Margaret Burns Parlato and Bonnie J. Cain, USAID Office of Education and Human Resources, Washington, 1978.

Television and Radio in Latin America: The experience with Health and Social Programming, with Margaret Burns Parlato, American Public Health Association, Washington, March 1978.

Fotonovelas and Comic Books: The Use of Popular Graphic Media in Development, with Margaret Burns Parlato and Bonnie C. Cain, USAID Office of Education and Human Resources, Development Support Bureau, Washington, January 1980 (second printing of same book, previously titled The Use of Graphic Print Media....etc., as above)

Rural Services/Basic Needs: Food and Nutrition Project 1980-85, Republic of the Gambia, January 1980

Report of Mission on Needs Assessment for Population Assistance: Tunisia, ed., UNFPA, New York, May 1980 (to be published in 1981.

Report of Mission on Needs Assessment for Population Assistance: Haiti, ed., UNFPA, New York, May 1979 (to be published in 1981.

PAPERS PRESENTED

"Advertising and Market Research: A Social Communications Model", Protein Advisory Group (PAG) to the United Nations, New York, June 1973.

"The Use of Mass Media in Nutrition Education", IX International Congress of Nutrition, Mexico City, October 1972.

"Nutrition and Mass Communications in India: A Rural Program", International Committee on Nutrition Education, Guadalajara, September 1972.

"The Use of Mass Media Technology in Nutrition Education", University of Baroda (India), School of Nutrition Sciences, May 1971.

"The Use of Advertising and Market Research Techniques in Social Campaigns", Asian Advertising Congress, Bankok, January 1972.

ROBERT REMINGTON FRANKLIN

EDUCATION

Ph.D. Program in Medical Anthropology, Department of Anthropology, Tulane University, New Orleans, Louisiana, (part-time) Feb. 1977 through present

General Preventive Medicine Residency, Specialty Area: International Health, School of Public Health & Tropical Medicine, Tulane University, New Orleans, Louisiana, Board Certified, June, 1977

M.P.H. & T.M., Specialty Area: International Health, School of Public Health & Tropical Medicine, Tulane University, New Orleans, Louisiana, Completed, January 1975

Fellowship, L.S.U. Interamerican Fellowship in Tropical Medicine: Study of Health Care Delivery Systems in Guatemala, Costa Rica, and Colombia, Central America, Summer, 1974

Rotating Internship, San Bernadino County General Hospital, San Bernadino, California, Completed, June 1972

M.D., U.C.L.A., School of Medicine, Los Angeles, California, Completed, June, 1971

B.A., cum Laude, Specialty Area: Biochemical Sciences, Harvard University, Cambridge, Massachusetts, Completed, June 1967

EXPERIENCE

Assistant Professor, Department of Biostatistics & Epidemiology, School of Public Health & Tropical Medicine, Tulane University, January 1978 through present.

Clinical Assistant Professor, Program in Community Medicine, School of Medicine, Tulane University, January 1978 through present.

Co-Director, Zaire National Nutrition Planning Center, Ministry of Health Government of Zaire, Kinshasa, Zaire, January 1978 through February 1980.

Assistant Professor, Program in Community Medicine, School of Medicine, Tulane University, July 1977 through December 1978.

Adjunct Assistant Professor, Department of Health Services Administration, School of Public Health & Tropical Medicine, Tulane University, July 1977 through December 1978.

Medical Director and Physician (part time), Jefferson Parish Prison, Gretna, Louisiana, August 1975 through October 1977.

Medical Director and Physician (part time), Health Screening Program, Jefferson Parish Sheriff's Department, Metairie, Louisiana, November 1976 through January 1977, and June 1980 through April 1981.

Instructor, Program in Community Medicine, School of Medicine, Tulane University, June 1975 through June 1977.

CONSULTING

USAID Office of Foreign Disaster Assistance, Washington, D.C., June, 1981. Participation in working group to design standardized format for assessing health and sanitation needs during disasters.

USAID/CARE - Congo Nutrition Education Project, Brazzaville, Peoples Republic of Congo, March-April, 1981. Design of methodology and training of personnel for survey of feeding practices, nutritional status and associated factors in 3 regions.

USAID/Tulane University/Government of Zaire, National Nutritional Planning Project, Kinshasa, Zaire, November 1980. Design of methodology of survey of infant and child feeding patterns and associated nutritional status in 3 urban zones.

United Nations University Mission to Cameroon and Zaire, October, 1980. Team leader, needs assessment for training and research in nutrition and foods in Cameroon and Zaire.

Tulane University/Government of Haiti, Port-au-Prince, Haiti, July and November, 1980. Design of methodology for survey of nutritional status, feeding patterns, morbidity, and associated factors in 29 rural villages.

Peace Corps - Zaire, Bukavu, Zaire, June, 1978. Training in public health and tropical medicine for Peace Corps Volunteers.

Medical Care Center of Louisiana, Inc., New Orleans, LA, September 1975 through September 1976. Preparation of H.M.O. feasibility study.

Jefferson Parish Prison, February-June 1975. Analysis and re-design of health care system for inmates.

ORGANIZATIONS

Fellow - American College of Preventive Medicine
Fellow - American Anthropological Association
Member - American Public Health Association
Fellow - Society for Applied Anthropology
Member - Association of Teachers of Preventive Medicine
Member - Society for Medical Anthropology
Member - National Council for International Health

ARTICLES AND CHAPTERS IN BOOKS

Banta, J.E. and Franklin, R.R. "Cost and Technology: Significance of Multiphasic Screening to Public Health." Clinical Engineering, Vol. 6, #5, pp.1-6, November, 1977.

Lass, L.G., Franklin, R.R., Bertrand, W.E. and Baker, J. "Health Knowledge, Attitudes and Practices of the Deaf Population in Greater New Orleans - A Pilot Study." American Annals of the Deaf, Vol. 123, No. 8, pp. 960-967, December, 1978.

Franklin, R.R., et al. "Early Detection of Chronic Disease: The Case for Screening Programs." Journal of the Louisiana State Medical Society, Vol. 131, No. 7, pp. 181-184, July, 1979.

Franklin, R.R., and Banta, J.E. "Motivational Aspects of Multiphasic Screening." Clinical Engineering, Vol. 8, No. 3, pp. 30-33, May-June 1980.

Nkamany, K., Glass, R., Schamper, J., Nwanze, K., Rico-Veslaco, J., Franklin, R.R., Dikassa, L., Beda, M., Duckett, E., and Carlisle, J. "The Consequences of the Drought in Bas-Zaire, 1978." Disasters, The International Journal of Disaster Studies and Practice, Vol. 4, No. 1, pp. 55-64, 1980.

Roberts, C.F., Franklin, R.R., Takenaka, J.N., Mitchell, G.B., "The Doctor/Patient Relationship with the Prelingually Deaf Adult," in Medical Care for Deaf Patients, Gallaudet Press, 1981 (in press).

Bertrand, W.E., Mock, N.B., Franklin, R.R., "Social Indicators: Their Use as an Evaluation Technique," in Methodological Advances in Evaluation Research, Ross F. Connor (ed.), Sage Publication, 1981 (in press)

Banta, J.E., and Franklin, R.R., "Significance of Multiphasic Screening to Public Health" in The Management of Technology in Health and Medical Care, Cesar A. Cassres (ed) Artech House, Inc., 1980.

Franklin, R.R., Jacobs, C.F., Bertrand, W.E., "Illness in Black Africans," in Biocultural Aspects of Disease, H. Rothchild (ed) 1981 (in press)

Franklin, R.R., et al. "Feeding Patterns of Infants and Young Children in Kinshasa, Zaire" (submitted)

Franklin, R.R., et al. "The Impact of Edema on Anthropometric Measurements in Nutritional Surveys: Findings from the Bas Zaire Famine," (submitted)

BOOK REVIEWS AND ABSTRACTS

Book Review by Franklin, R.R., American Journal of Tropical Medicine and Hygiene, May 1979, Vol. 28, No. 3, pp. 594-596: book reviewed Human Milk in the Modern World by D.B. Jelliffe and E.F.P. Jelliffe, Oxford University Press, 1978.

Abstract in Nutrition Planning, Vol. 2, No. 3, p. 114 of Kkamany, K., Makwala, Franklin, R.R., et al. "Investigation of Nutritional Consequences of the Drought in Bas-Zaire, 1978." Report No. 8, Zaire National Nutrition Planning Center, Kinshasa, Zaire 1979, pp.77.

PAPERS PRESENTED AT PROFESSIONAL MEETINGS:

Banta, J.E., Franklin, R.R. "Cost and Technology: Significance of Multiphasic Screening to Public Health." Presented at the American Medical Association, Dallas, June 1976.

Franklin, R.R., et al. "Methodology for the Investigation of the Nutritional Consequences of the Drought in Bas Zaire." Presented at the USAID/OFDA/Africa Bureau Symposium on Famine, Washington, D.C., May, 1979.

Franklin, R.R. and Carlisle, J. "Nutrition and Bottle Feeding in Zaire - Preliminary Findings." Presented at the Family Life Foundation Conference on Infant Formula in the Third World, New York, May 1979.

Bertrand, W.E., Mock, N.B., Franklin, R.R., "Impact of Evaluation Research on International Development Strategies." Presented at the Evaluation Research Society Annual Conference, Washington, D.C., November, 1980.

Franklin, R.R., Bertrand, W.E., Dikassa, L.N., "Use of Secondary Indicators to Evaluate and Monitor Community Nutritional Status: A Case Study of the Bas Zaire Famine." To be presented at the XII International Congress of Nutrition, San Diego, California, August, 1981.

Baer, F.C., Franklin, R.R., Bertrand, W.E., "Breast and Bottle Feeding Practices in Rural Haiti." To be presented at the American Anthropological Association Meeting, Los Angeles, California, December, 1981.

Franklin, R.R., et al. "Feeding Patterns of Infants and Young Children in Kinshasa, Zaire." To be presented at the American Anthropological Association Meeting, Los Angeles, California, December, 1981.

H. Commitment of Staff Level by Phase.

Question: Please provide percentage and hours of commitment for technical personnel by phase and task.

Response: In Exhibit 7, Commitment of Staff Level by Phase, we have provided explicit detail on the proposed staffing levels for the DIHF project team.

	PHASE I			Total (I)	PHASE II								Total (II)	PHASE III		Total (III)	Total (I + II + III)
CDSI	1	2	3		1	2	3	4	5	6	7	8		1	2		
C. Combs - Project Director	200	150	200	550								3,900	3,900	400	600	1,000	5,450
J. Robertson - Data Base Mgr.	40	400	40	480					1,920				1,920	200	520	720	3,120
Computer Operator									5,760				5,760				5,760
Warehouse Clerk									2,880	2,880			5,760				5,760
Secretary												5,760	5,760				
Total	240	550	240	1,030					10,560	2,880		9,660	23,100	600	1,120	1,720	25,850
LTS																	
R. Rader - Supervisor	200	100	600	900	200	50	500	100	384	480	600	770	3,164	800	464	1,264	5,400
D. Koach - Inform Mgmt Spec.	250	200	704	1,154	250	150	900	400	700	340	480	400	3,620	400	234	634	5,400
D. Ferrara - Editor	100	120	650	870	200	1,804	600	—	—	400	1,000	100	4,104	300	134	434	5,408
L. Brilhart - Cataloger	100	100	480	680	2,400	1,850	200	100	150	204	350	240	4,694	64	40	104	5,398
L. Densmore - Abstractor	70	40	200	310	370	4,014	250	—	—	—	240	220	5,094	64	40	104	5,508
B. Poinsett - Abstractor	70	40	200	310	370	4,014	250	—	—	—	240	220	5,094	64	40	104	5,508
E. Gore - Abstractor	70	40	200	310	370	4,014	250	—	—	—	240	220	5,094	64	40	104	5,508
Total	940	640	2,954	4,534	4,160	15,096	3,030	600	1,234	1,424	3,150	2,170	38,864	1,756	992	2,748	38,146
CSG																	
J. Booth - Supervisor	60	225	200	485	160	50	25	175	250	1,920	500	500	3,520	140	600	740	4,745
A. Cowan - Sr. Advisor	25	25	25	75			400			100			500	25	25	50	625
E. Fake - Thesaurus	100	100	100	300	200	200	800		200	1,500	1,500		4,400	25	200	225	4,925
J. Kubalak - Cataloguer/Thesaurus					750	750	1,000		100	1,900	500		5,000				5,000
J. DuChez - Cataloguer					1,000	500							1,500				1,500
I. Anderson - Cataloguer					1,000	500							1,500				1,500
S. Werner - Info. Spec.									2,800				2,800				2,800
E. McGuiness - User Services										1,920			1,920				1,920
F. Dodd - Micrographics Supv.	40	75	100	215				1,440		100	100		1,640				1,855
Clerical/Typing							1,000	4,600		592	1,000		7,200				7,200
Micro. Equip. Operators								4,800					4,000				4,800
Consultant							80						80	24		24	104
Total	225	425	425	1,075	3,850	2,000	3,380	11,023	3,430	8,032	3,600	500	34,940	214	825	1,039	37,854
SYSTEMHOUSE, INC.																	
Senior Mgmt. Consultant	—	80	—	80	—	—	—	—	—	—	—	—	—	120	200	320	400
Senior Programmer Analyst	—	240	—	240	—	—	—	—	—	—	—	—	—	—	—		240
		320		320	—	—	—	—	—	—	—	—	—	120	200	320	640
Consultants																	
M.J. Rule	40	60	100	200	40	40	20	—	—	40	—	20	160	540	300	840	1,200
H. Wellisch	16	16	16	48	—	—	—	—	—	—	—	—	0	24	24	48	96
F. Schick	24	24	0	48	—	—	—	—	—	—	—	—	—	24	24	48	96
A. Trezza	—	—	—	—	—	—	—	—	—	—	—	—	—	80	16	96	96
C. Chen	—	—	—	—	—	—	—	—	—	—	—	—	—	80	16	96	96
H. White	—	—	—	—	—	—	—	—	—	—	—	—	—	50	46	96	96
A. Grosch	28	20	—	48	—	—	—	—	—	—	—	—	—	48	—	48	96
C. Meadow	40	32	—	72	—	—	—	—	—	—	—	—	—	24	—	24	96
	148	152	116	416	40	40	20	—	—	40	—	20	160	870	426	1,296	1,872
Total	1,553	2,087	3,735	7,375	7,250	17,136	6,355	11,623	15,224	12,376	6,750	12,350	89,864	3,560	3,563	7,123	183,562

Exhibit 7 COMMITMENT OF STAFF LEVEL BY PHASE

I. Client References.

Question: Please provide references for the customers mentioned in the Technical Proposal.

Response: Exhibit 8, Summary of Related Contracts, was delivered to A.I.D. on September 14, 1981 and is repeated here.

CLIENT	CONTRACT NAME	CONTRACT NO.	CLIENT REFERENCE	TELEPHONE
COMPUTER DATA SYSTEMS, INC.				
Postal Service	Central Philatelic Fulfillment Program	104230-76-W-0542	Mr. Robert Janeski	202/245-4578
Nuclear Regulatory Commission	Document Distribution System	NRC-10-80-362	Mr. Craig D. Lebo	301/427-4420
Navy Recruiting Command	NROTC Navy-Marine Scholarship Qualification System	N00600-78-CC-0004	Ms. Mary Ann Grooms	202/433-2846
Department of Energy, Energy Information Agency	Energy Data Collection and Information Processing Program	DE-AC01-79EI-06357	Ms. Aleta Caracciolo	202/252-1019
LOGICAL TECHNICAL SERVICES CORP.				
A.I.D., Office of Development Information	Technical Document Processing	AID/DSAN-C-0240, 0254	Mr. Maury Brown Mr. David Donovan	202/235-9207 202/235-9215
National Institute for Occupational Health and Safety	Document Processing Services, Technical Information System	210-76-0113	Ms. Dianne Rose	202/443-1590
A.I.D., Office of Food for Peace	Management Information System	AID/OTR-C-1342	Mr. Clinton Thompson	202/632-0032

EXHIBIT 8. SUMMARY OF RELATED CONTRACTS

CLIENT	CONTRACT NAME	CONTRACT NO.	CLIENT REFERENCE	TELEPHONE
National Aeronautics and Space Administration, Technology Utilization Program	Publication of NASA Tech Briefs	NASW-3391	Mr. J. O. Harrison	202/755-2420
A.I.D., Computer Center Division	Automatic Data Processing Systems Standards	AID/OTR-C-1309	Mr. Willard Lee	202/632-0032

CAPITAL SYSTEMS GROUP

National Science Foundation, EAS. SE, and STIA Directorates	Processing and Information Dissemination	EAS-802-0049	Mr. George S. James	202/357-9644
Dept. of Health and Human Servies (DHHS), Health Standards and Quality Bureau	Information Clearinghouse	HCFA-500-79-0025	Mr. Spencer Schron	301/594-0981
DHHS, Bureau of Community Health Services	National Clearinghouse for Family Planning Information	HSA-240-81-0022	Ms. Faye Graves Ms. Elsie Sullivan	310/443-4273 301/443-2430
DHHS, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases	Arthritis Information Clearinghouse	1-AM-8-2215	Mr. Victor Wartofsky	301/496-7495
Alcohol, Drug Abuse, and Mental Health Administration	National Clearinghouse for Drug Abuse Information, Dissemination Services	282-80-0031, DN	Ms. Leona Furguson	301/443-6500
National Agricultural Library, Food and Nutrition Information	Abstracting and Indexing Monographs and Audio-visuals	P.O. 43-32R7-9-910, 43-32R6-8-1856, 43-32R6-7-2985	Ms. Robyn Frank	301/344-3719

	Volumes			Vendor Costs Unit Costs			Total Costs			
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Total
Filming*										
Microfiche Master	1,875	1,875	1,875	8.50	9.52	10.66	15,938	17,850	19,988	53,776
Silver Duplicates	1,875	1,875	1,875	.37	.41	.46	694	769	863	2,326
TOTAL FILMING										56,129
Fiche Duplication*										
Entire Collection	16,875 x 10	18,750 x 15	20,625 x 40	.23*	.26*	.20**	38,813	73,125	165,016	276,954
On-Demand	10,000	10,000	10,000	2.50	2.80	3.16	25,000	28,000	31,600	84,600
Courier Service for Priority I, II	250	250	250	25.00	25.00	25.00	6,250	6,250	6,250	18,750
TOTAL FICHE DUPLICATING										380,304
Paper Blow-back	575,000	575,000	575,000	.15	.168	.188	86,250	96,600	108,100	290,950
TOTALS										$727,383

* Includes photocomposed headers, packaging for shipment, 10-day turnaround, 20% premium for shorter turnaround.
**Unit prices will lower due to quantity discounts.

Exhibit 4. Micrographics/Micropublishing

ANALYSIS COSTS

In-House Costs (Amortized Over 3 Years of Project)		Total Cost	Projected Net Savings
Do Not Propose To Film In-House		$56,129	0
Equipment:	Bruning OP59 Duplicator w/Collator	$48,435	
	Film (1,305,000 fiche-2,000 fiche/roll = 661 rolls @ $50/roll	33,050	
	Envelopes - 870,000 @ $.02	17,400	
	Supplies/Test Equipment	20,000	
	Service	11,751	+ $153,764
Labor:	Operator - 4,800 hrs. @ $13.50***	64,800	
	Clerk - 3,840 @ $8.10	31,104	
		$226,540	
Xerox 970	Rent = $1680/mo. x 36 mos.	$60,480	
Supplies	48,000 copies/mo. x 36 mos. x $.006/copy	10,368	
Operator:	4,608 hrs. @ $10.80	49,766	
		$120,614	+ $170,336
TOTAL		$486,708	+ $324,100

*** Full loaded rate

Exhibit 4. (page two)